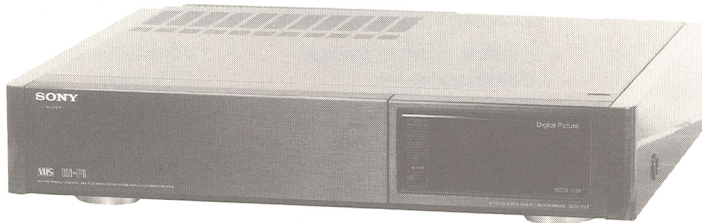


SLV-777/AS/NC/UB/VP

RMT-V5B



This photo is SLV-777.

AEP, E Model
SLV-777

Australian Model
SLV-777AS

AEP, New Zealand Model
SLV-777NC

UK Model
SLV-777UB

ME, Germany Model
SLV-777VP

- Refer to the **SERVICE MANUAL of VHS MECHANICAL ADJUSTMENT II** for MECHANICAL ADJUSTMENTS. (9-972-816-11)

VHS Hi-Fi

SPECIFICATIONS

System

Format	VHS PAL standard
Video recording system	Rotary two-head helical scanning FM system
Video signal	PAL colour (System B and G: SLV-777/777AS/777NC/777VP, System I: SLV-777UB) DDR SECAM colour (SLV-777VP) CCIR monochrome signals 625 lines
Tape speed	SP: 23.39 mm/sec. LP: 11.70 mm/sec.
Maximum recording/playback time	SP: 4 hours (with E-240) LP: 8 hours (with E-240)
Fast-forward/rewind time	Approx. 4 min. 20 sec. (with E-195)
High speed rewind time	Approx. 2 min. 50 sec. (with E-195)

Tuner Section

Tuner system (audio)	Intercarrier system
Channel coverage	SLV-777/777AS/777NC/777VP VHF channels E2 – E12 (channels A to H for Italy) CATV channels S01 – S05 CATV channels S1 – S20 HYPER S21 – S41 UHF channels E21 – E69

RF output signal

SLV-777UB
UHF channels B21 – B68
SLV-777/777AS/777NC/777VP
UHF channels E30 – E39 (adjustable)
SLV-777UB
UHF channels B30 – B39 (adjustable)
75-ohms asymmetrical aerial socket

Aerial input

Inputs and Outputs

Video inputs

LINE IN 2: phono jack (1)
EURO-AV (LINE 1) and (LINE 3): 21-pin (pin 20) 1 Vp-p, 75 ohms, unbalanced, sync negative
LINE IN 2: phono jacks (2)
47 kilohms, -7.5 dBs (0 dBs = 0.775 V rms)
EURO-AV (LINE 1) and (LINE 3): 21-pin (pins 2 and 6) More than 10 kilohms, -4 dBs
LINE OUT: phono jack (1)
EURO-AV (LINE 1): 21-pin (pin 19) 1 Vp-p, 75 ohms, unbalanced, sync negative

Audio inputs

Video outputs

– Continued on next page –



VHS VIDEO CASSETTE RECORDER
SONY®

Audio outputs	LINE OUT: phono jacks (2) –7.5 dBs at load impedance: 47 kilohms Output impedance: less than 10 kilohms EURO-AV (LINE 1): 21-pin (pins 1 and 3) Output impedance: less than 1 kilohm –4 dBs with 10 kilohm load	Power consumption 35 W Operating temperature 5°C to 40°C (41°F to 104°F) Storage temperature –20°C to 60°C (–4°F to 140°F) Dimensions 466 × 96.5 × 395 mm (w/h/d) (18³/₈ × 3⁷/₈ × 15⁵/₈ inches) Weight SLV-777/777AS/777VP: 7.9 kg (17 lb 7 oz) SLV-777UB/777NC: 8.1 kg (17 lb 14 oz)
CONTROL S IN CONTROL S OUT CONTROL L Microphone input	Minijack (1) Minijack (1) 5-pin DIN (1) Minijack (1) Input impedance: –60dBs for low impedance microphone Stereo minijack (1) Impedance more than 8 ohms Output 45mW (8 ohms)	
Headphone input		
Timer Section		
Clock Time indication Timer setting	Quartz locked 24-hour cycle Only for recording 8 programmes in one month at max.	
Timer back-up	Built-in self-charging capacitor Back-up duration: Up to 3 hours at one time	
General		
Power requirements	240 V AC, 50 Hz (SLV-777UB) 220 V AC, 50 Hz (SLV-777/777AS/777NC/777VP)	
Wireless Commander RMT-V5B		
	Remote control system Infrared control Command mode VTR 1/2/3 Power requirements 3 V DC, two IEC designation R6 batteries Dimensions 75 × 45 × 235.5 mm (w/h/d) (3 × 1¹³/₁₆ × 9³/₈ inches) Weight Approx. 240g (8¹/₂ oz) excluding batteries	
Accessories Supplied		
	Wireless Remote Commander RMT-V5B with two R6 batteries 75-ohm coaxial cable (1) Video/audio connecting cable (1) Screwdriver for RF channel adjustment (1)	
	Design and specifications are subject to change without notice.	
	Note This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.	

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splasher and bridges.
2. Check the interboard wiring to ensure that no wires are “pinched” or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK $\triangle$ OR DOTTED LINE WITH MARK $\triangle$ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SERVICE NOTE

1. RETURNING PINCH ROLLER, GUIDE ROLLER AND ELEVATOR CAM TO STOP CONDITION

- 1) Remove the bottom panel.
- 2) Turn the worm gear **A** of the cam motor, located at lower of the MD (between the front panel and the MD-49 board), to the arrow direction **B** by finger.

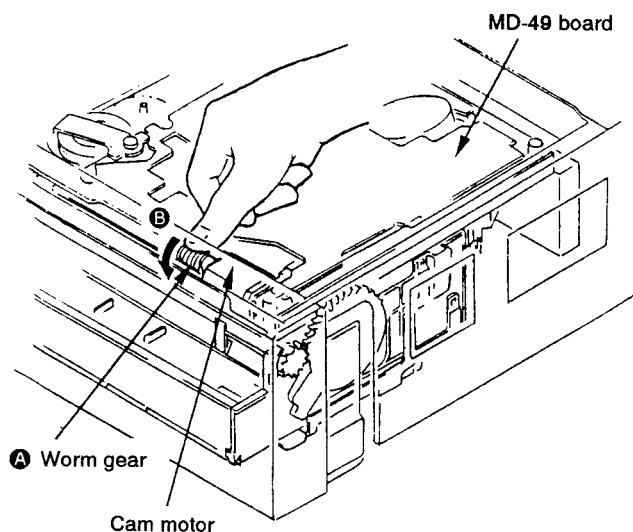


Fig. 1.

2. WINDING TAPE TO CASSETTE HALF

Turn the fly wheel **A** of the capstan motor to the arrow direction **B** by finger, then the cassette tape will be wound to the cassette half.

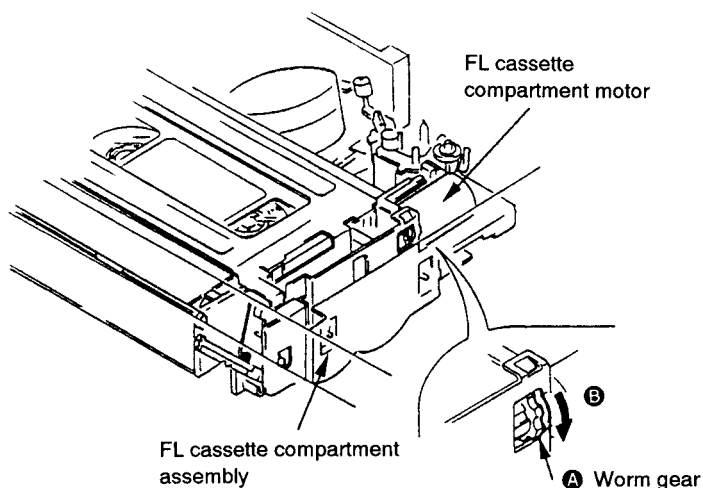


Fig. 2.

3. TAKING OUT CASSETTE WHEN UNIT IS DEFECTIVE WITH CASSETTE IN

- 1) Remove the upper case.
- 2) Turn the worm gear **A** of the FL cassette compartment motor to the arrow direction **B** by finger.

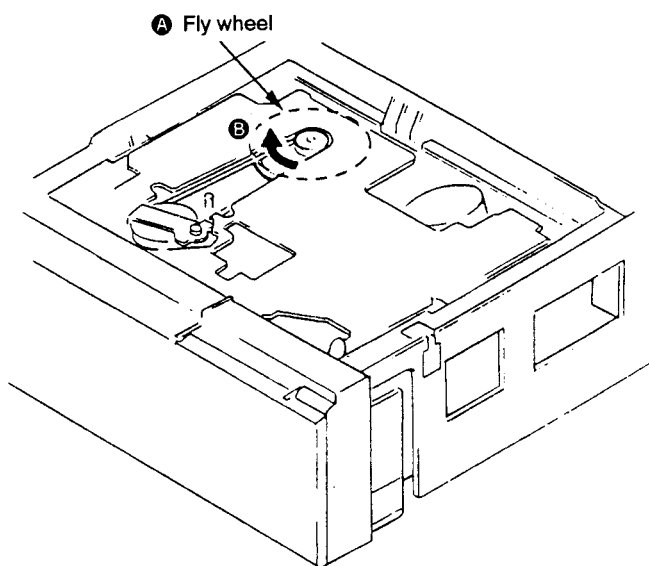


Fig. 3.

Note: When performing 1. to 3., be careful not to clog and damage the cassette tape.

4. UPPER DRUM REPLACEMENT

4-1. Removal of Upper Drum

- 1) Remove the screw ❶ (P3×5) and take out the grounding shaft ❷. (See Fig. 4.)
- 2) Completely remove the rotary upper drum board and desolder the soldering indicated by the arrows (16 points).
- 3) Remove two screws ❸ (PSW3×8) and take out the rotary upper drum in the arrow direction ➤. (See Fig. 5.)
If it is difficult, remove by shaking the rotary upper drum gradually.

Note: If the drum can not be removed, check whether the solders have been removed or not again.

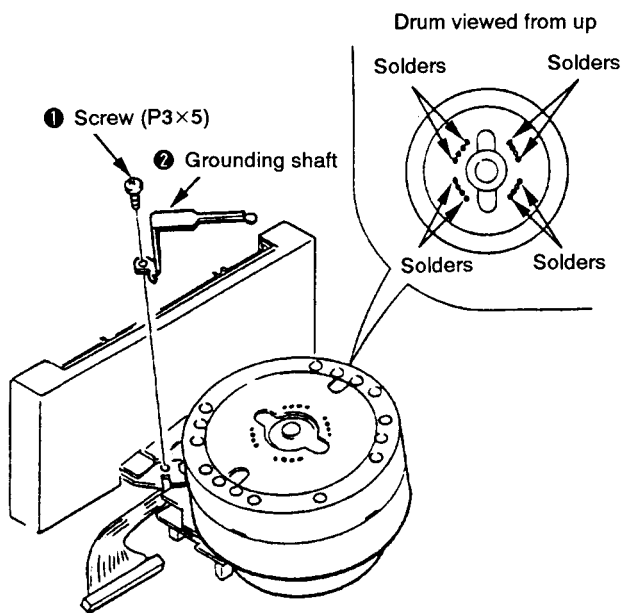


Fig. 4.

4-2. Mounting Upper Drum

- 1) When inserting the rotary drum into the lower drum, be careful not to blur the contacting surface with fingerprint or the like.
- 2) Mount the rotary upper drum board by aligning SP1 with S1 of rotary transformer board (lower drum) so that the screw holes of both upper and lower drums match. (See Fig. 5.)
- 3) If it is difficult, mount the upper drum by shaking it gradually.

Note: Be careful not to damage the head. Make sure that the upper drum is tightly inserted.

- 4) Tighten two screws ❸ (PSW3×8). (See Fig. 5.)

Note: Temporary tighten two screws. After making sure that upper drum is tightly inserted, tighten the screws.

- 5) Solder 16 points on the board of the rotary upper drum.
- 6) Fix the grounding shaft ❷ using the screw ❶ (P3×5) so that the protrusion of grounding shaft end contacts the center of the drum shaft.

Note: When attaching the grounding shaft ❷, be careful not to apply force to the spring section of it.

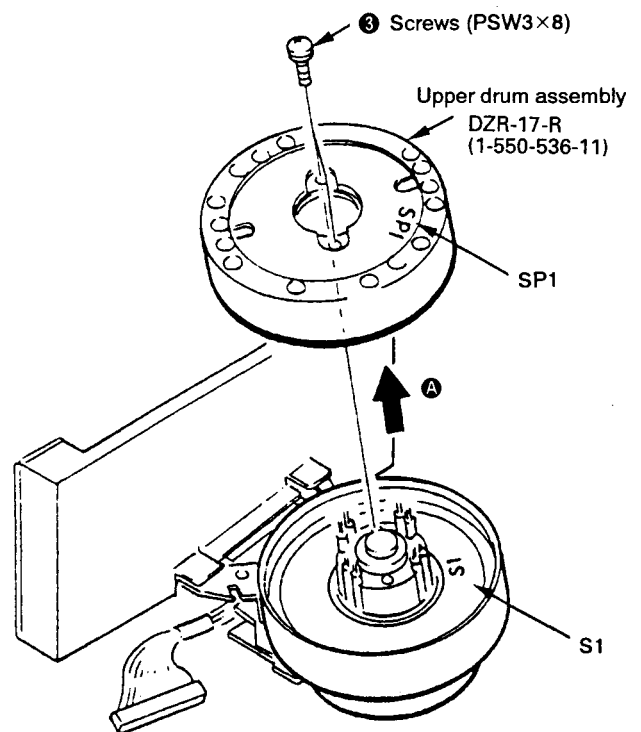


Fig. 5.

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
1. GENERAL			3. DIAGRAMS		
Warning		7	3-1. Circuit Boards Location		51
About This Manual		7	3-2. Overall Block Diagram		52
Precaution		7	3-3. Video (1) Block Diagram		55
Main Features		7	3-4. Video (2) Block Diagram		59
Identifying the Operational Parts		8	3-5. Digital Picture Block Diagram		63
Connections		12	3-6. Servo, System Control Block Diagram		65
Remote Control Operation		12	3-7. System Control — Video Block Interface...68		
Date and Clock Setting		13	3-8. System Control — Servo Peripheral Circuit Interface		69
Adjusting the TV		14	3-9. System Control — Mechanism Block Interface		71
Presetting the Active Channels		15	3-10. System Control		
Handling Video Cassette		17	— System Control Peripheral Circuit Interface		73
Playback		17	3-11. System Control — Audio Block Interface		73
Recording TV Programmes		25	3-12. Audio Block Diagram		75
Recording Stereo/Bilingual Programmes		27	3-13. Timer, Tuner, Mode Control Block Diagram		79
Use of the Tape Counter		29	3-14. Tuner Block Diagram		81
Timer Activated Recording		30	3-15. NICAM Block Diagram		83
Quick Timer Recording		35	3-16. NICAM (Near Instantaneous Compand System)		
Index Function		36	(SLV-777NC/UB Only)		86
Audio Recording		38	3-16-1. NICAM Standard		86
Tape Editing		39	3-16-2. NICAM Receiving System		86
Synchronized Editing — Editing with a VTR Equipped			3-16-3. Description of NA-7 Board (NICAM Decoder)		86
with a Sony Control Terminal		41	3-17. Power Block Diagram		89
Synchronized Editing — Connection		42			
Synchronized Editing — Operation		43	4. PRINTED WIRING BOARDS AND		
Manual Editing — Editing with a VTR not Equipped			SCHEMATIC DIAGRAMS		
with a Sony Control Terminal		44	4-1. Frame Schematic Diagram		91
Insert Editing		44	4-2. Printed Wiring Boards and Schematic Diagrams		96
The Menu System		46	• RP-63 Board		96
			• YC-65, SD-4, VI-97 Boards		102
2. DISASSEMBLY			• PI-20, CG-10 Boards		110
2-1. Removal of Front Panel and Cabinet Assembly		47	• DG-11, DI-43 Boards		117
2-2. Removal of Door Block Assembly		47	• MA-62 (Servo, System Control, Audio),		
2-3. Removal of Control Switch Block		47	SI-10, VP-24 Boards		125
2-4. Opening of MA-62 Board		48	• MA-62 (Servo, System Control) Board		133
2-5. Removal of MF-94 Board and			• MD-49 Board		141
Terminal Board Block Assembly		48	• HF-9 Board		149
2-6. Removal of TU-120, HF-9, PI-20, CG-10 Boards and			• IO-40 Board		153
DG Block Assembly		49	• MF-94, RM-42 Boards		157
2-7. Removal of NC Block Assembly			• MF-101, TK-12, JS-20, Switch Block Boards		164
(SLV-777UB/NC Only)		49	• NA-7, NM-1 Boards		172
2-8. Removal of FL Cassette Compartment Assembly		49	• TU-120 Board		179
2-9. Removal of MF-101 Board and			4-3. Semiconductors		183
Mechanism Deck Block Assembly		50			
2-10. Removal of VI-97, YC-65 Boards and					
Switching Block		50			

<u>Section</u>	<u>Title</u>	<u>Page</u>
5.	EXPLODED VIEWS	
5-1.	Front Panel and Cabinet Assemblies	184
5-2.	Power Supply Block Assembly.....	185
5-3.	Main Boards Assembly	186
5-4.	FL Cassette Compartment Assembly	187
5-5.	Mechanism Chassis Assembly (1)	188
5-6.	Mechanism Chassis Assembly (2)	189
5-7.	Mechanism Chassis Assembly (3)	190
6.	ELECTRICAL PARTS LIST	191
	HARDWARE LIST	221
7.	ELECTRICAL ADJUSTMENTS	
7-1.	Pre-adjustment Preparations	222
7-1-1.	Instruments to be Used	222
7-1-2.	Connection	222
7-1-3.	Setup for Adjustment	222
7-1-4.	Alignment Tape (MH-2)	222
7-1-5.	Specified I/O Level and Impedance	223
7-1-6.	Operating Method When the Front Panel Removed	223
7-1-7.	Adjusting Sequence	223
7-2.	Power Supply Check (Power Block)	223
7-3.	System Control Adjustment	224
7-3-1.	Clock Adjustment (MF-94 Board)	224
7-4.	Servo System Adjustment	224
7-4-1.	Switching Position Adjustment (MA-62 Board)	224
7-5.	Video System Adjustments	225
7-5-1.	Playback Y Signal Level Adjustment (YC-65 Board)	225
7-5-2.	Y Signal NR Level Adjustment (YC-65 Board)	225
7-5-3.	Sync AGC Adjustment (YC-65 Board)	225
7-5-4.	Sync Tip Carrier Set and Deviation Adjustment (YC-65 Board)	226
7-5-5.	White Clip, Dark Clip Adjustment (YC-65 Board)	226
7-5-6.	Recording Y Signal Level Adjustment (YC-65 Board)	226
7-5-7.	Recording Chroma Level Adjustment (YC-65 Board)	227
7-5-8.	PAL JOG AFC Adjustment (YC-65 Board)	227
7-5-9.	0.5H CCD Level Adjustment (YC-65 Board)	227
7-5-10.	SECAM Discrimination Adjustment (YC-65 Board)	227

<u>Section</u>	<u>Title</u>	<u>Page</u>
7-6.	Digital Picture and Character Generator System Adjustments	228
7-6-1.	AGC Adjustment (PI-20 Board)	228
7-6-2.	Read Clock Adjustment (DG-11 Board)	228
7-6-3.	Write Clock Adjustment (DG-11 Board)	228
7-6-4.	TINT Adjustment (DG-11 Board)	229
7-6-5.	Clamp Level Adjustment (DG-11 Board)	229
7-6-6.	Hue and Color Level Adjustment (DG-11 Board)	229
7-6-7.	Character Generator Clock Check (CG-10 Board)	229
7-6-8.	AFC Adjustment (CG-10 Board)	229
7-6-9.	Character Position Adjustment (CG-10 Board)	230
7-7.	Audio System Adjustments	230
7-7-1.	Hi-Fi Audio System Adjustment	230
7-7-2.	Normal Audio System Adjustment	232
7-8.	Tuner System Adjustments	234
7-8-1.	RF AGC Adjustment (IF001 Unit/TU-120 Board)	234
7-8-2.	Receive Separation Adjustment (TU-120 Board) (SLV-777/NC/VP)	234
7-9.	NAICAM System Adjustments (SLV-777UB/NC)	234
7-9-1.	Eye Pattern Adjustment (NA-7 Board)	234
7-9-2.	VCO Adjustment (NA-7 Board)	234
7-10.	Adjustment Parts Arrangement Diagram	236

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

NOTICE FOR THE CUSTOMERS IN THE UNITED KINGDOM

IMPORTANT

The wires in the mains lead are coloured in accordance with the following code:

Blue: Neutral

Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows: The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red. Do not connect either wire to the earth terminal in the plug which is marked by the letter E or by the safety earth symbol $\perp$ or coloured green or green-and-yellow.

2

Precautions

On Safety

- For SLV-777UB, operate on 240 V AC, 50 Hz. For SLV-777, SLV-777VP and SLV-777NC, operate on 220 V AC, 50 Hz.
- Should anything fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- If the unit will not be used for an extended period, unplug it from the wall outlet. To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The unit is not disconnected from the mains (AC power source) as long as it is connected to the mains outlet, even if the unit itself has been turned off.

On Installation

- Allow adequate air circulation to prevent internal heat build-up.
- Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies, etc.) that may block the ventilation holes.
- Do not install the unit near heat sources such as radiators or air ducts or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- The unit is designed for operation in a horizontal position. Do not install it in an inclined position.
- Keep the unit and cassette tapes away from equipment with strong magnets, such as microwave ovens or large loudspeakers.
- Do not place any heavy object on the unit.

3

About This Manual

This manual includes information on four video cassette recorders, the SLV-777, SLV-777UB, SLV-777VP and SLV-777NC. First, refer to the model name indicated on the front and rear panels and check what your model is. Any differences in appearance or operation of the four VTRs are clearly indicated in the text, for example, "For SLV-777 only." However, note that the illustrations used in this manual are those of the SLV-777VP.

■ On colour systems of SLV-777/777UB/777NC

This unit is designed to record and play back using the PAL colour system. Recording and playback of video sources based on other colour systems cannot be guaranteed.

■ On colour systems of SLV-777VP

This unit is designed to record and play back the PAL and DDR SECAM colour systems. Recording and playback of video sources based on other systems cannot be guaranteed.

Caution

Television programmes, films, video tapes and other materials may be copyrighted. Unauthorized recording of such materials may be contrary to the provisions of the copyright laws. Also, use of this recorder with cable television transmission may require authorization from the cable television transmitter and/or programme owner.

Main Features

For Editing

- Edit monitor function allows easier editing by displaying both the edit source picture and the picture to be edited on the TV screen.
- Flying erase head allows smooth transition between two recordings.
- Synchronized editing either from or onto this VTR is possible.
- Two kinds of remote control terminals, CONTROL L and CONTROL S IN jacks, allow this VTR to be remotely controlled by other equipment involved in tape editing.
- Video/audio input jacks on the front panel offer easy connection to other VTRs.

On-screen Displays

- Information on the tape counter, tape speed, remaining tape length and present date and time, can be displayed on the TV screen.
- Auto menu can be displayed to set the VTR to the desired automatic tape operation.
- Auto repeat function allows playing back the desired portion of the tape repeatedly.
- P in P (picture in picture) function allows watching a small TV picture in the playback picture and vice versa.
- Information on the pre-selected timer recording programmes can be called up on the screen with a press of the button.

Convenient Functions

- Auto tracking function automatically adjusts the tracking condition for maximum picture and sound quality.
- JOG/SHUTTLE on the VTR or the Remote Commander and SHUTTLE EDIT on the Commander allow quick access to the desired scene.
- The wireless Commander with liquid crystal display (LCD) provides access to almost all of the VTR controls and makes timer setting easy.
- Timer recording can be set for up to eight programmes within one month in advance.
- The beginning of the desired scene can be located easily with the index scan/index search function.
- The NICAM broadcast (stereo/bilingual programmes in the United Kingdom and Nordic countries) can be received. (SLV-777UB/777NC only)

High-quality Picture

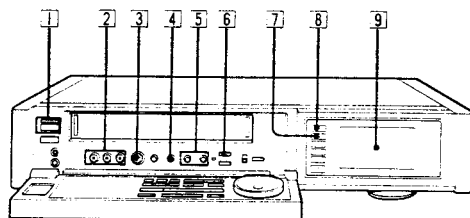
- Sharp, finely detailed pictures are possible through the use of High Quality (HQ) picture technology.
- HQ Video Cassette Recorders (VTR) with this marking incorporate VHS high-quality picture technology and are compatible with any video cassette recorders bearing the VHS mark.

5

Identifying the Operational Parts

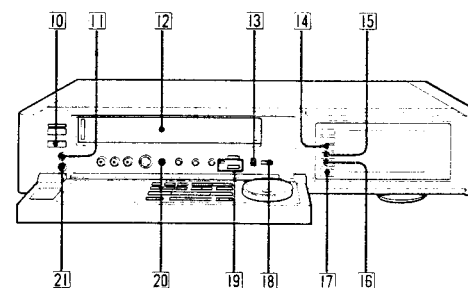
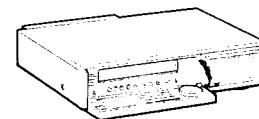
Front

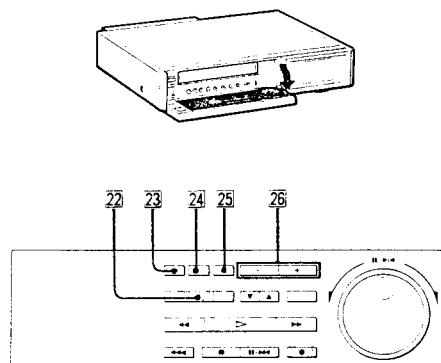
- 1 **ON STANDBY switch and indicator**
- 2 **LINE IN 2 VIDEO/AUDIO jacks**
- 3 **CONTROL L connector (5-pin DIN type)** (page 72)
Connect to the CONTROL L connector of other Sony product for systematic operations such as synchronized editing.
- 4 **SHARPNESS (SOFT/SHARP) control**
Use to adjust the sharpness of the picture.
- 5 **REC LEVEL controls** (page 67)
Adjust the audio recording level. Normally set these controls at the center indented position.
- 6 **EDIT MONITOR button** (page 76, 78, 80)
Press to display the picture selected with the INPUT SELECT button and that being recorded on this VTR simultaneously.
- 7 **EDIT MONITOR indicator**
- 8 **AUTO TRACKING indicator** (page 26)
- 9 **Display window**



Front

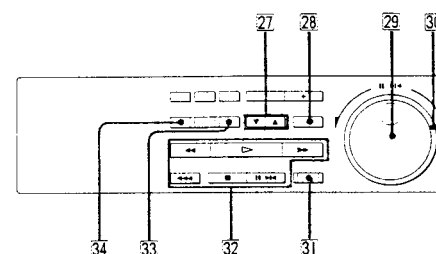
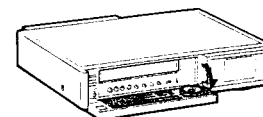
- 10 **EJECT button**
Press to eject the cassette. This button does not function during recording.
- 11 **MIC jack (mini type)**
Connect a microphone.
- 12 **Cassette compartment** (page 24)
- 13 **COMMAND MODE selector** (page 16)
Set to the same position as the COMMAND MODE button on the Commander.
- 14 **AUDIO INSERT indicator**
- 15 **VIDEO INSERT indicator**
- 16 **◀◀ (high speed rewind) indicator**
- 17 **Remote sensor**
Point the Commander here.
- 18 **VPS (Video Programme System) ON/OFF switch (SLV-777VP only)** (page 59)
- 19 **SYNCHRO EDIT button and indicator** (page 76, 77)
Press to perform synchronized editing.
- 20 **PHONE LEVEL (headphone level) control**
- 21 **PHONES (headphones) jack (stereo mini type)**





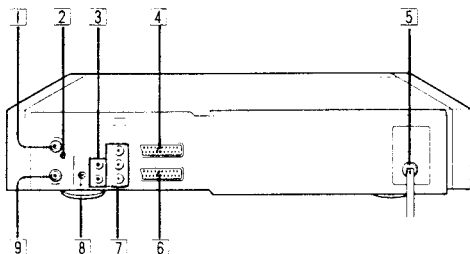
Front

- 22 TIMER REC ON OFF button**
Press to deactivate or reactivate the timer recording standby mode when using the VTR before timer recording.
- 23 TV VTR button (page 43)**
Press and light the VTR indicator in the display window to view the playback of the VTR or a programme selected on the VTR. Press this button again to turn off the VTR indicator to view a programme selected on the TV. This button is effective only when the VTR is connected to the TV via the EURO-AV (LINE 1) connector.
- 24 INPUT SELECT button (page 20, 40)**
Press to select the signals to be recorded by the VTR. The selected mode will be indicated in the display window as follows:
TUNER: To record TV programmes.
SIMUL: To record TV programmes and audio signals from equipment connected to the EURO-AV (LINE 1) connector or the LINE IN 2 jacks simultaneously.
LINE L1: To record the signals from equipment connected to the EURO-AV (LINE 1) connector.
LINE L2: To record the signals from equipment connected to the LINE IN 2 jacks.
LINE L3: To record the signals from equipment connected to the EURO-AV (LINE 3) connector.
- 25 REC MODE SP/LP button (page 40)**
Press to select the recording tape speed. SP or LP.
- 26 PROGRAM +/- buttons**
Press to select the programme positions.



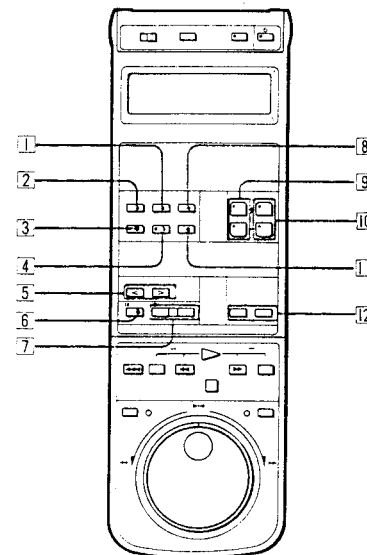
Front

- 27 TRACKING NORMAL/SLOW and STILL ADJUST buttons (page 26, 28)**
Press either of the buttons to clear streaks that may appear on the screen when playing back tapes in normal or slow speed or to reduce picture shaking in still mode.
- 28 TRACKING AUTO/MANUAL button (page 26)**
Press to reactivate the automatic tracking function after manual tracking adjustment.
- 29 JOG dial (page 28, 40, 41)**
- 30 SHUTTLE ring (FORWARD/REVERSE) (page 28, 41)**
- 31 ● REC (record) button (page 40)**
- 32 Tape transport buttons (page 25, 27)**
◀ REW (rewind) button
▶ PLAY button
▶▶ FF (fast-forward) button
■ STOP button
⏸ PAUSE STILL button
◀◀ HIGH SPEED REWIND button
- 33 QUICK TIMER button (page 61)**
Press to activate the quick timer recording function.
- 34 EDIT ON OFF button (page 69)**
Normally keep this button at OFF (i.e. the EDIT indicator is off in the display window). When using this VTR for editing, press this button to light the EDIT indicator.



Rear

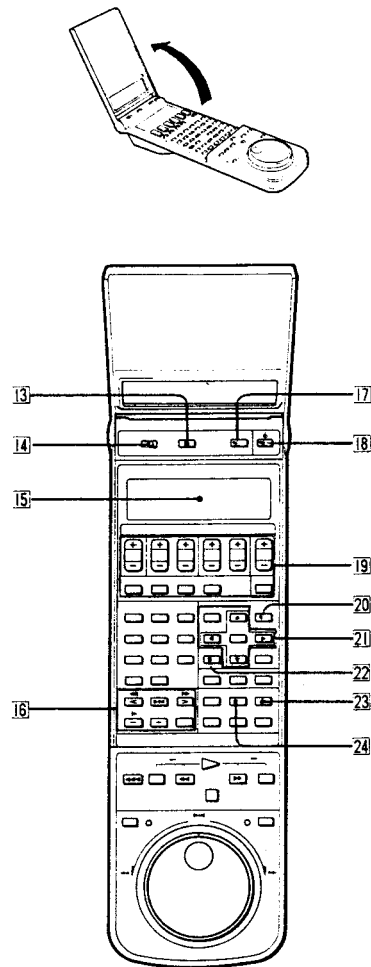
- 1 **AERIAL IN socket** (page 14)
- 2 **DX/LOCAL switch**
Normally set to DX. If the TV signal is very strong, set it to LOCAL.
- 3 **CONTROL S IN OUT jacks (mini-jack)** (page 74, 75)
Connect to the CONTROL S output/input jack of other Sony product for systemized operations such as synchronized editing or remote control operation.
- 4 **EURO-AV (LINE 1) connector (21-pin)** (page 14)
The on-screen display is available via this connector.
- 5 **AC power cord**
- 6 **EURO-AV (LINE 3) connector (21-pin)** (page 74)
- 7 **LINE OUT VIDEO/AUDIO jacks (phono type)** (page 14, 71)
The on-screen display is not available via these jacks.
- 8 **RF CHANNEL screw (30 to 39)** (page 19)
- 9 **AERIAL OUT socket** (page 14)



Remote Commander RMT-V5B

- The buttons on the Commander with the same name or mark as those on the VTR have the same function.
 - The buttons with a red dot inscribed on top can be used to remotely control Sony TVs with the **RM** mark when the TV / VTR remote control selector is set to TV.
 - Keep the upper cover closed except where noted.
- 1 **TIMER ON SCREEN button** (page 53)
Press to display the timer settings on the TV screen.
 - 2 **EDIT MONITOR button** (page 76, 78, 80)
 - 3 **DATA SCREEN button** (page 33)
 - 4 **AUDIO MONITOR button** (page 29, 45, 46)
 - 5 **SHUTTLE EDIT buttons** (page 41)
 - 6 **II PAUSE button**
 - 7 **● REC (recording) buttons**
Press two buttons simultaneously.
 - 8 **INDEX button** (page 64, 65, 66)
 - 9 **VOL (TV volume) +/- buttons**
Press to control the volume of the TV. Effective only for Sony TVs with the **RM** mark.
 - 10 **PROG (programme) +/- buttons**
 - 11 **COUNTER RESET button** (page 48)
 - 12 **AUDIO-VIDEO INSERT buttons** (page 80)

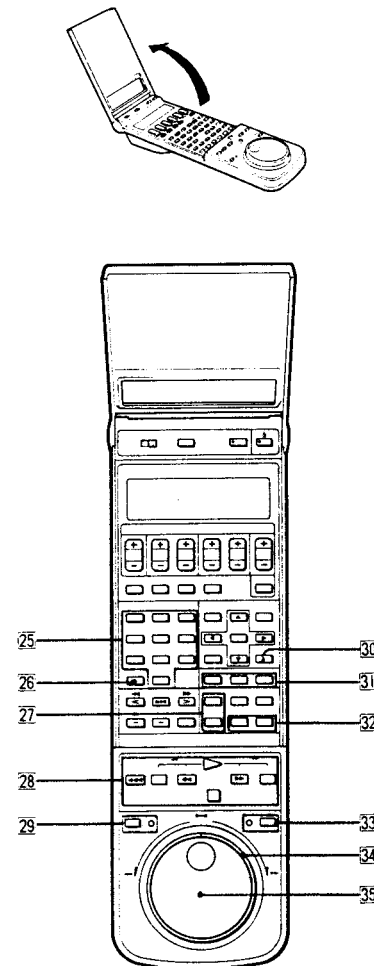
Remote Commander RMT-V5B



- 13** **TIMER REC (ON OFF) button**
- 14** **TV / VTR remote control selector**
(page 16)
Set to **VTR** to control this VTR and set to **TV** to control the TV.
- 15** **Liquid-crystal display**
- 16** **Various speed playback buttons**
(page 27)
< **II** > (to select the direction for frame-by-frame picture or the direction for any playback mode)
> (to obtain a still picture)
SLOW +/- (slow speed up/down)
> 2 (double speed playback)
- 17** **TV VTR button** (page 43)
- 18** **(on standby) button**
- 19** **Timer recording clock set buttons**
(page 17, 50)
- 20** **COMMAND MODE button** (page 16)
- 21** **Menu operation buttons**
Press **MENU** to display or erase the main **MENU**. Press **EXE** to store the selected parameters.
Press **▲** / **▼** / **◀** / **▶** to move the cursor.
- 22** **FUNCTION MEMORY button** (page 37)
- 23** **INPUT SELECT button** (page 40, 52, 70, 76, 78)
- 24** **REC MODE select button** (page 40)

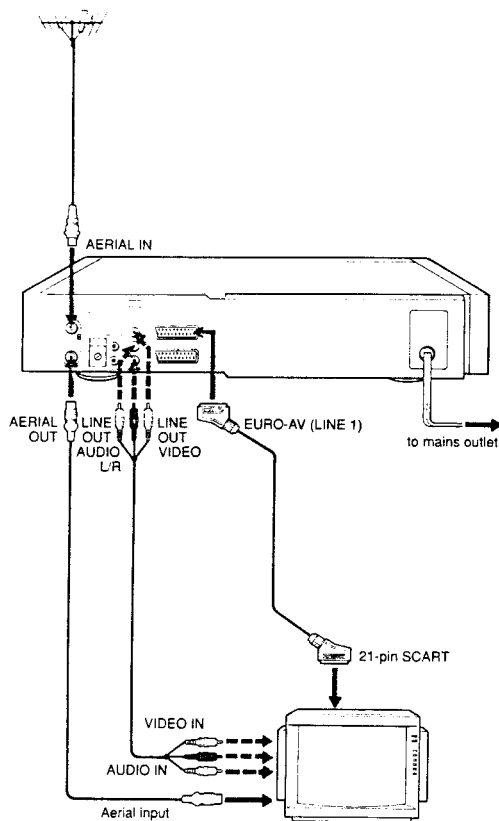
Note on the TV / VTR remote control selector
When you set the **TV / VTR** remote control selector on the Remote Commander to **TV**, the TV/VTR button cannot operate some Sony TV's.

Remote Commander RMT-V5B



- 25** **Programme position number buttons**
Press to select the programme position directly.
- 26** **- / - - (10's digit) button**
Press to select a programme number over 9. To select 23, press - / - -, then 2 and 3.
- 27** **TIMER CHECK/TIMER CLEAR buttons** (page 54)
Press to check, correct, or clear the timer settings.
- 28** **Tape transport buttons** (page 25, 27)
SEARCH (reverse/forward)
REW (rewind)
PLAY
FF (fast-forward)
STOP
HIGH SPEED REW
- 29** **JOG SHUTTLE function button and indicator** (page 28)
Press to light the indicator to use JOG SHUTTLE for various playback modes.
- 30** **TV SCAN button** (page 32, 44)
- 31** **P in P (picture in picture) buttons** (page 31)
P in P to display the subsidiary picture. SHIFT to change the position of the subsidiary picture. DIGITAL OFF to turn off the subsidiary picture.
- 32** **INDEX MARK and ERASE buttons** (page 63, 66)
- 33** **PROG (programme) function button and indicator** (page 21, 40)
Press to light the indicator to use JOG for selection of the programme position.
- 34** **SHUTTLE ring** (page 28)
- 35** **JOG dial** (page 21, 28, 40)

Connections



Before You Begin

- Turn off the power to the VTR and TV.
- Do not connect the mains lead until all of the connections are complete.
- Connect firmly since a loose connection may cause picture distortion.

Using the AERIAL IN/OUT Sockets

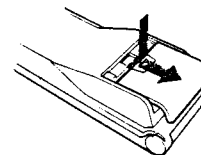
- 1 Connect the aerial to the AERIAL IN of this VTR.
- 2 Connect the AERIAL OUT of this VTR to the aerial input terminal of the TV using the supplied aerial cable.

Additional Connections for Higher Picture Quality

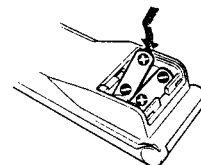
- **Using the EURO-AV connector**
If your TV is equipped with a 21-pin SCART connector, connect it to the VTR's EURO-AV (LINE 1) connector using the optional VMC-2121CE cable to view a higher quality picture.
- **Using the LINE OUT VIDEO/AUDIO jacks**
If your TV is equipped with video/audio input jacks, connect it to the VTR's LINE OUT VIDEO/AUDIO jacks using the supplied video/audio connecting cable to view a higher quality picture. **Note** that the on-screen display will not be available if connection is made via these jacks.

Remote Control Operation

1



2



Preparing the Commander

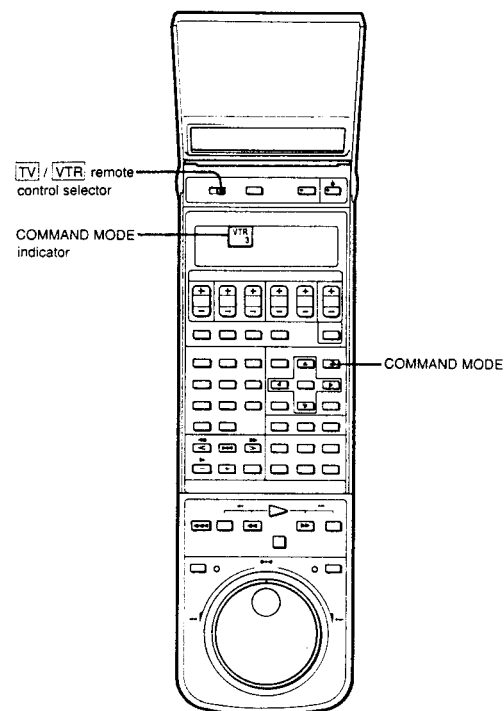
Battery insertion

- 1 Slide and remove the cover.
- 2 Insert two R6 (size AA) batteries with polarity positioned correctly.
- 3 Close the cover. The clock on the Commander will read - D - - - -. Set the date and clock referring to the "Date and Clock Setting" (page 17).

Note on batteries

With normal operation, batteries will last for about three months. However, if the Commander will not be used for a long period, remove the batteries to avoid possible damage from battery leakage.

Date and Clock Setting

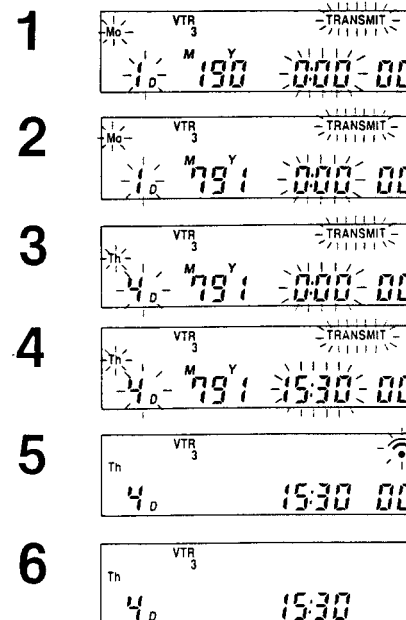
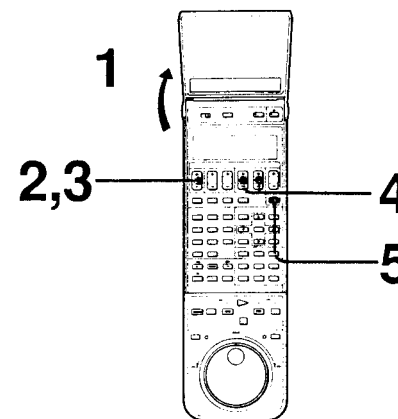


Command Mode Setting

Set the COMMAND MODE 1/2/3 selector on the VTR to the same number displayed in the LCD. To change the setting on the Commander, press COMMAND MODE repeatedly. Then, set the TV / VTR remote control selector to **VTR**.

Remotely Controlling Other Sony Equipment

- **Controlling another VTR equipped with a command mode selector**
Set different command mode for this VTR (VTR 3, for instance) and the other VTR (VTR 1). Select VTR 1 on the Commander to control the other VTR and VTR 3 to control this VTR.
- **Controlling equipment without a command mode selector**
Change the setting on the Commander as follows to control each type of VTR.
VTR 1: Sony Betamax infrared remote control VTRs
VTR 2: Sony 8 mm format VTRs
VTR 3: This VTR



Before You Begin

The time and date between the years 1990 and 2005 can be set with the Commander.

Operation

Example: To set to 15:30, Thursday, July 4, 1991.

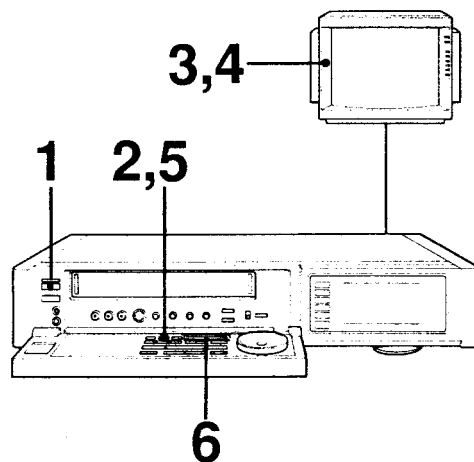
- 1 Open the cover.
- 2 Keep pressing the D (date) button until 7 M 91 Y is displayed. The date will be incremented slowly up to 30 days and then the month will be incremented.
- 3 Press the + side or - side of the D (date) button until 4 D is displayed. The day of the week appears automatically.
- 4 Press the H (hour) and M (minute) buttons under TURN OFF to set the current time.
- 5 Point the Commander at the VTR and press TRANS (transmit). A beep sound confirms that the date and clock setting is registered in the VTR as well.
- 6 Check the display window on the VTR and close the cover.

To correct the preset date and time
Open the cover, press CLOCK SET and repeat steps 2 to 6.

When 0:00 is blinking on the VTR
Any time power is interrupted for more than three hours, you will see 0:00 blinking when power is restored. You will have to re-set the date and clock again.

When a short beep sounds repeatedly
The VTR is in the timer recording or quick timer recording mode or standby mode for timer recording and the setting cannot be transmitted.

Adjusting the TV



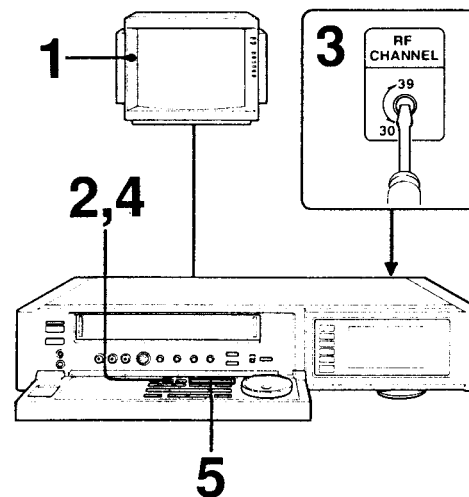
Before You Begin

If you have connected your VTR and TV using only the aerial sockets, one of the television programme positions must be adjusted to receive the VTR's playback signal. If TV-VTR connection is made by other means, skip this step.

Operation

- 1 Make connections referring to "Connections" and press ON STANDBY.
- 2 Press INPUT SELECT to light LINE L2 in the display window. Do not connect any equipment to the LINE IN 2 VIDEO jack.
- 3 Turn on the TV and select a programme position that is not used to receive a TV station.
- 4 Tune the TV so that a blue screen with tape counter and tape speed indication is clearly displayed on the TV screen.
- 5 Press INPUT SELECT to light TUNER in the display window.
- 6 Press PROGRAM +/- on the VTR and check that the screen changes to a different programme.

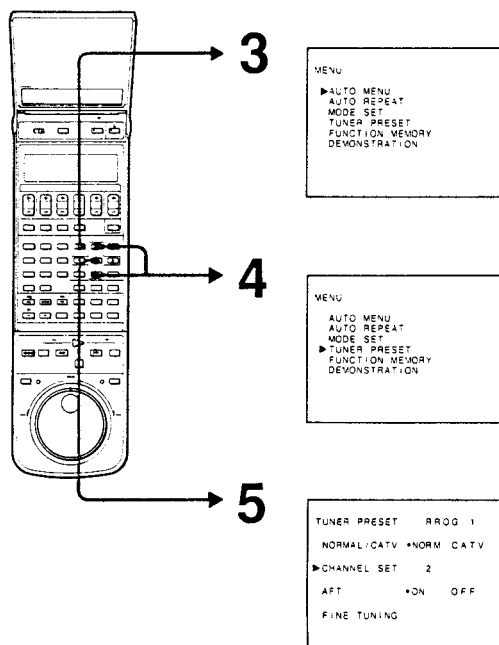
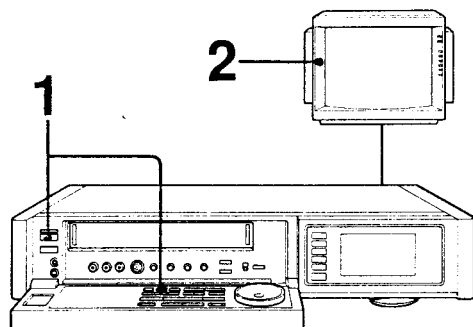
Now your TV is tuned to receive the VTR's playback picture. Whenever playing back a tape, select the programme position you chose in step 3. If you are not sure how to tune your TV, refer to the TV's instruction manual or consult your dealer.



When the Playback Picture is not Free of Disturbance

- 1 Select a programme position on the TV between UHF channels 30 and 39, so that the TV shows no picture and a steady rustling sound or no sound is heard.
- 2 Press INPUT SELECT to light LINE L2 in the display window. Do not connect any equipment to the LINE IN 2 VIDEO jack.
- 3 Turn the RF CHANNEL screw with the supplied screwdriver so that a blue screen with tape counter and tape speed indication is clearly displayed on the TV screen.
- 4 Press INPUT SELECT to light TUNER in the display window.
- 5 Press PROGRAM +/- on the VTR and check that the screen changes to a different programme.

Presetting the Active Channels



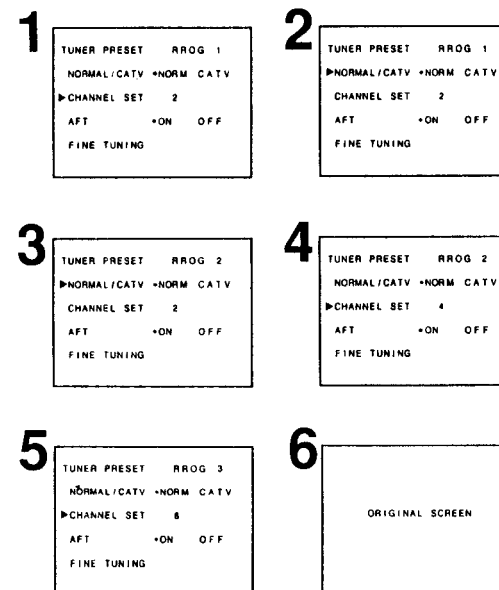
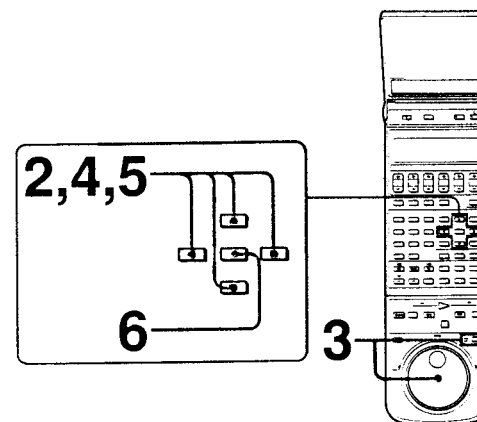
Before You Begin

- This VTR is capable of receiving VHF channels E2 — E12, UHF channels E21 — E69, and cable TV channels S1 — S41 and S01 — S05.
- The receivable channels are governed by the TV broadcasting system in your area.
- Up to 60 channels can be allocated to any desired programme position.
- The TUNER PRESET menu will not be displayed unless VTR-TV connection is made via the aerial sockets or EURO-AV (LINE 1).

To Call Up the TUNER PRESET Menu

- 1 Turn on the VTR and press INPUT SELECT to light the TUNER indicator and the programme position number in the display window.
- 2 Turn on the TV. Set to the programme position for the VTR if VTR-TV connection is made via the aerial sockets. Select VTR input if VTR-TV connection is made via EURO-AV (LINE 1).
- 3 Press MENU with the VTR in the stop mode. The main MENU appears.
- 4 Move cursor with ▲ or ▼ to TUNER PRESET.
- 5 Press EXE. The TUNER PRESET menu appears.

Note for the users of SLV-777UB
The TUNER PRESET menu of the SLV-777UB does not have the NORMAL/CATV selection as illustrated.

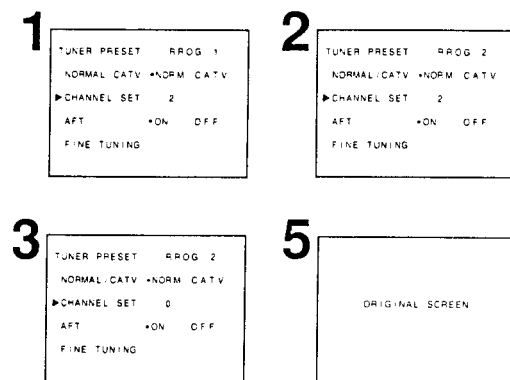


Tuning a Desired Channel

- 1 Call up the TUNER PRESET menu.
- 2 Move cursor with ▲ to NORMAL /CATV and select NORM with ◀. (For SLV-777UB, skip this step.) To tune in CATV channels first, select CATV with ▶.
- 3 Select the desired programme position in any of the following ways:
 - Press the PROG function button to light the indicator and turn JOG on the Commander.
 - Turn it clockwise for higher numbered programme positions; counterclockwise for lower numbered programme positions.
 - Press PROG +/- on the Commander or PROGRAM +/- on the VTR.
- 4 Move cursor to CHANNEL SET with ▲ or ▼ and press ◀ or ▶. The channel number automatically increases with ▶ and decreases with ◀. The number stops changing when the first channel received in your area is detected.
- 5 To allocate a channel to the next programme position, repeat steps 2 to 4.
- 6 Press EXE to store the allocated channels and return to the original screen.

Channel scanning on your VTR

- When ▶ is pressed in steps 4 and 5, the channels are scanned in the following order. When ◀ is pressed, the scanning order is reversed.
VHF (E2—E12) → UHF (E21—E69) → CATV (S1—S20) → HYPER BAND (S21—S41) → CATV (S01—S05)
- The SLV-777UB only scans UHF channels B21 to B68.
- In Italy, channels 13 to 20 correspond to channels A to H.



Erasing Unwanted Programme Positions

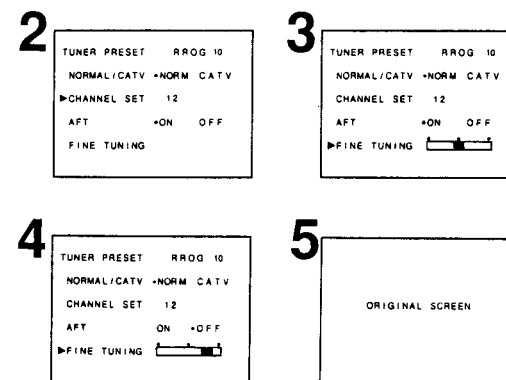
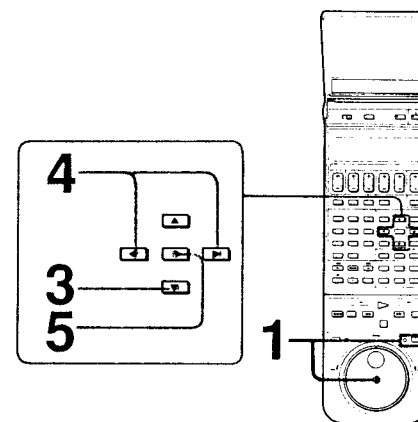
The VTR can be preset so that only the desired programme positions will appear when you press PROG +/- on the Commander or PROGRAM +/- on the VTR.

- 1 Call up the TUNER PRESET menu.
- 2 Press PROG +/- on the Commander or PROGRAM +/- on the VTR to call up the unused programme position. You can also call it up using JOG on the Commander. Press the PROG function button to light the indicator and turn JOG.
- 3 Press programme position number button 0 twice or keep pressing ◀ or ▶ until 0 is displayed.
- 4 Repeat steps 2 and 3 to erase other programme positions.
- 5 Press EXE.

- To enter the erased programme positions again
Follow the operations in "Tuning a Desired Channel."

To Allocate the Channels Directly

After step 3 in "Tuning a Desired Channel," move cursor to CHANNEL SET.
Enter the desired programme numbers using the programme position number buttons. To enter one's digits, press 0 and then the desired number. To enter two digit numbers, press the ten's digit number and the one's digit number.



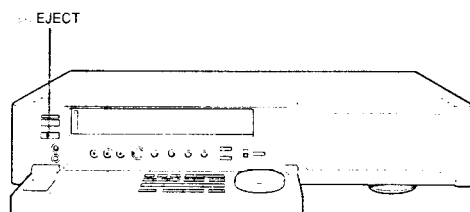
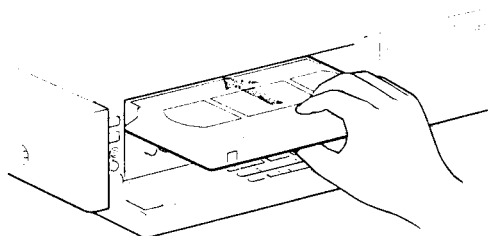
Manually Fine-tuning a Weak Station

Normally the AFT (Automatic Fine Tuning) function fine-tunes the picture with the AFT in TUNER PRESET menu set to ON. However, when the programme received on the VTR is distorted due to signal interference, fine tuning may solve the problem.

- 1 Select the distorted programme position by pressing PROG +/- on the Commander or PROGRAM +/- on the VTR, or using JOG on the Commander.
- 2 Call up the TUNER PRESET menu.
- 3 Move cursor to FINE TUNING. The fine tuning meter appears.
- 4 Press ◀ or ▶ to obtain the best picture. If you cannot obtain a better picture, move cursor to AFT and move dot to ON.
- 5 Press EXE to store that position and return to the original screen.

Note on the TUNER PRESET Menu
When the channel scanning function finds a station, it stops, and the blue background changes to the received TV picture. Usually, the TUNER PRESET menu will be superimposed over the TV picture clearly. However, if the synchronization of the received TV picture is disturbed (e.g. through interference from a subsidiary channel), the TUNER PRESET menu disappears or is not clear. In this case, press ◀ or ▶ to continue the scanning operation.

Handling Video Cassettes



Cassette Insertion

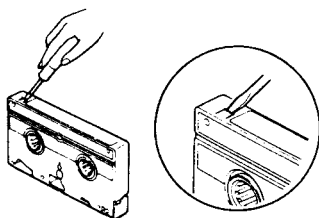
Insert the cassette by slowly pressing its center with the arrow indication facing upwards. When a cassette is inserted, the power will be turned on automatically. If the inserted cassette has its safety tab removed, playback starts automatically.

Cassette Ejection

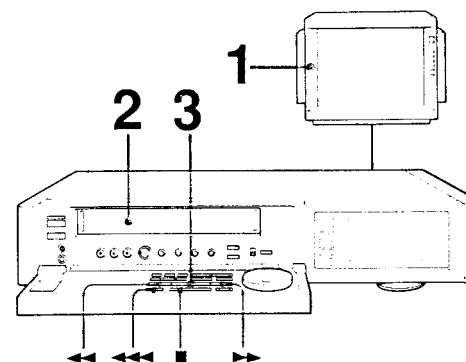
Press EJECT on the VTR. When the VTR is turned off, pressing the EJECT button will turn on the unit, eject the cassette, and turn off the VTR again. Note that EJECT will not function during recording.

Erase Protection

When recording is made on a pre-recorded tape, the previous recording will be erased. To avoid this, remove the safety tab with a screwdriver or a similar tool. The cassette will then be ejected when recording is attempted. To record again on a cassette that has no tab, simply cover the safety tab hole with a piece of plastic tape.



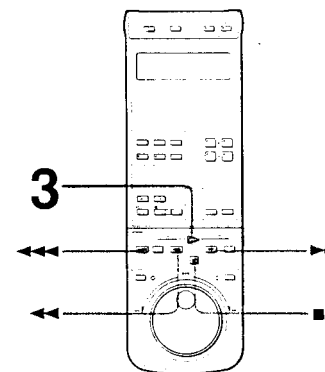
Playback

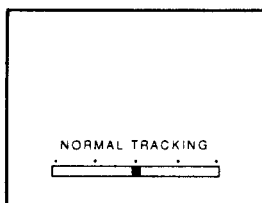
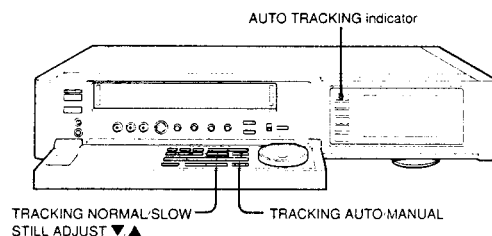


Playing a Tape

- 1 Turn on the TV and select the programme position for the VTR.**
If VTR-TV connection is made via EURO-AV (LINE 1) or LINE OUT VIDEO AUDIO, select the input for the VTR.
- 2 Insert a cassette.**
The VTR will be turned on. If your cassette has its safety tab removed, playback starts automatically.
- 3 Press ►.**
Playback starts.
The VTR automatically rewinds the tape when it reaches the end.

To stop playback, press ■.
To rewind the tape, press ◀◀.
To rewind the tape at a higher speed, press ◀◀◀.
To advance the tape rapidly, press ▶▶.





Picture Adjustments

■ Auto tracking function

The tracking condition is automatically adjusted on this VTR. The AUTO TRACKING indicator blinks while the VTR is searching for the best tracking condition and lights when maximum playback picture is obtained. The automatic tracking control is activated in the following conditions:

- when the cassette is inserted and played back.
- when the recording tape speed on the playback tape is switched between SP and LP.
- when the picture is distorted by scratches, etc. on the tape.
- when the AUTO TRACKING indicator is turned on by pressing TRACKING AUTO-MANUAL after the picture is adjusted manually. (See below.)

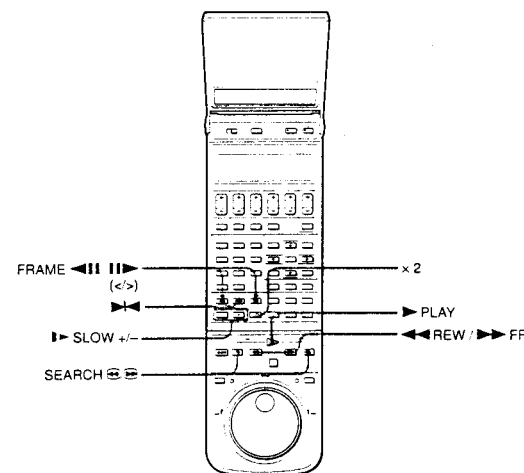
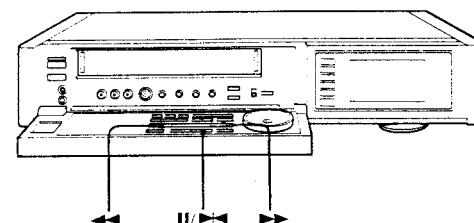
■ Manual adjustment during normal playback

If streaks or snow appear, adjust the picture using TRACKING NORMAL SLOW and STILL ADJUST ▼▲.

Press either ▼ or ▲ to obtain the best possible picture.

Notes on auto tracking

- When the manual adjustment proves unsatisfactory, press both of the TRACKING NORMAL SLOW and STILL ADJUST ▼▲. The tracking condition will return to the center position.
- When the sound on the hi-fi audio track is not clear, adjust it with TRACKING NORMAL SLOW and STILL ADJUST ▼▲. While adjusting, the sound on the normal audio track may be heard.
- Tracking adjustment may not be possible when the recording condition of the tape is very poor.



Various Playback Modes Using the Buttons on the Commander and the VTR

■ Playback pause/still

Press II on the VTR, II or II on the Commander. Press ► to resume normal playback.

■ Frame-by-frame playback

Press ◀II or II▶ in playback still mode. II▶ will advance and ◀II will reverse the picture one frame. Press ► to resume normal playback.

■ Variable speed playback

Press ► SLOW + - for slow playback between 1/5 to 1/30 times normal speed. Press + or - to change the playback speed. Press x 2 for double speed playback. The speed setting can be made from any playback mode. Press ► to resume normal playback.

■ Reverse playback

During normal, slow or x 2 playback, press ◀II (<) to reverse the picture. Press II▶ (>) or ► to resume forward playback.

■ Picture search

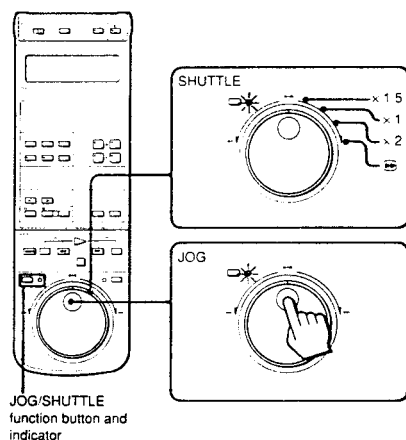
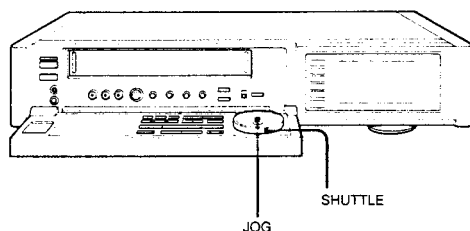
Press ◀◀ or ►► during playback. The picture will be scanned in reverse with ◀◀ and forward with ►► as long as they are pressed. Release the button to return to the previous playback mode.

■ Locked picture search

Press ◀◀ or ►► SEARCH during playback. The picture will keep on scanning in reverse with ◀◀ and in forward with ►► even after the button is released. To resume normal playback, press ►.

■ Viewing the picture during fast-forward or rewind

Press ►► during fast-forward, or ◀◀ during rewind mode. The picture can be seen while the button is pressed. Release the button to return to the previous mode.



Various Playback Modes Using JOG/SHUTTLE

Various playback modes can be selected with JOG SHUTTLE on the Commander or the VTR from any playback mode. If you use the Remote Commander, press the JOG SHUTTLE function button to light the indicator. (The VTR enters the still picture mode.)

■ Using the SHUTTLE ring

Turn the ring and hold it. Playback speed can be selected according to the turning angle as illustrated. The same speed is available in the reverse direction.

■ Using the JOG dial

Playback speed varies according to the speed at which you turn the dial (frame-by-frame, slow, $\times 1$). The same speed is available in the reverse direction.

Releasing JOG SHUTTLE makes a still picture. To resume normal playback, press ►.

To eliminate streaks or noise bands during slow motion play

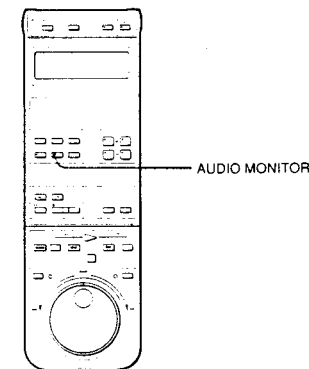
Adjust the picture with TRACKING NORMAL SLOW and STILL ADJUST ▼▲ inside the front panel. The picture can be adjusted easily in faster speed playback.

To eliminate the bands on the top or bottom of the screen in still mode

Change to the slow motion play mode and adjust the picture with TRACKING NORMAL SLOW and STILL ADJUST ▼▲.

To eliminate picture shaking during still mode

Adjust the picture with TRACKING NORMAL SLOW and STILL ADJUST ▼▲.



Listening to a Stereo or Bilingual Tape

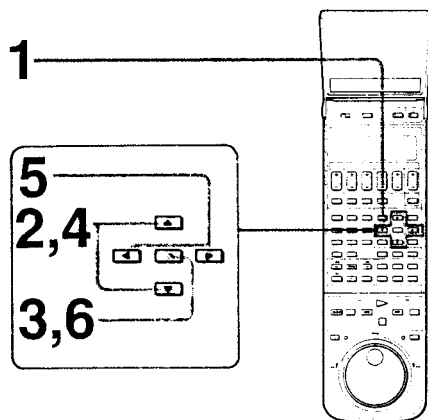
Press AUDIO MONITOR to select the sound to be heard.

With each press, stereo (left and right channel sounds), left-channel sound, right-channel sound or the sound on the normal audio track is selected cyclically in order. The selected sound is indicated in the display window of the VTR.

Display	Sound to be heard	
	Stereo tape	Bilingual tape
STEREO	Stereo	Left and right channels
MAIN/L	Left channel	Left channel
SUB R	Right channel	Right channel
None	Monaural (on normal audio track)	Sound on normal audio track

Notes on the AUDIO MONITOR button

- AUDIO MONITOR will not function with a monaural tape.
- AUDIO MONITOR does not operate when AUDIO MIX ON is selected in the MODE SET menu (see page 30).



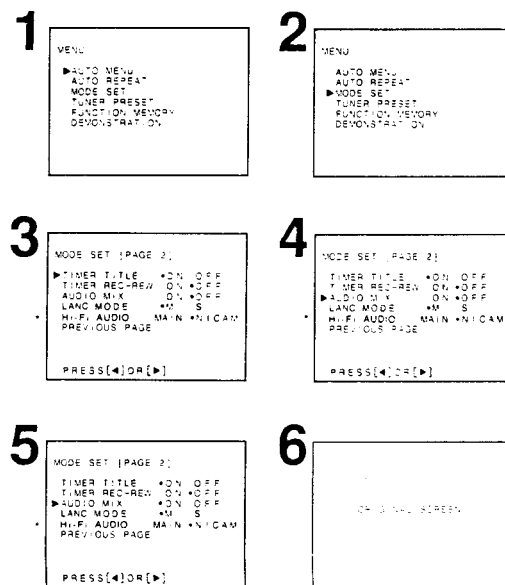
To listen to the sounds on the hi-fi video track and normal audio track mixed

It is possible to output the sounds recorded on the hi-fi video track and the normal audio track simultaneously. This function is useful when you listen to an audio-inserted tape.

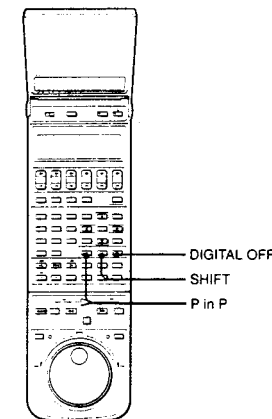
- 1 Press **MENU** in the stop mode.
The main MENU appears.
- 2 Move cursor with **▲** or **▼** to **MODE SET**.
- 3 Press **EXE**.
If the **MODE SET [PAGE 1]** menu appears, move cursor with **▲** or **▼** to **NEXT PAGE** and press **EXE**.
The **MODE SET [PAGE 2]** menu appears.
- 4 Move cursor with **▲** or **▼** to **AUDIO MIX**.
- 5 Select **ON** or **OFF** by **◀** or **▶**.
ON: to make **AUDIO MONITOR** inoperative so that the sounds of the hi-fi video and normal audio tracks are always output.
OFF: to make **AUDIO MONITOR** operative so that you can select the sound to be heard.
- 6 Press **EXE** to store the setting and return to the original screen.

Note

Reset the **AUDIO MIX** setting to **OFF** after listening to the particular tape.



Only for SLV-777UB/777NC only.



Inserting a Small Picture into the Playback Picture

Press **P in P** during playback.
The subsidiary picture selected with **INPUT SELECT** will appear on the TV screen.
See illustration [a].

• If **TUNER** mode is selected with **INPUT SELECT**, you can watch the TV picture on the subsidiary screen.

Changing the position of the subsidiary picture

Press **SHIFT** repeatedly until the desired position is reached.
See illustration [b].

Inverting the subsidiary picture and the main picture

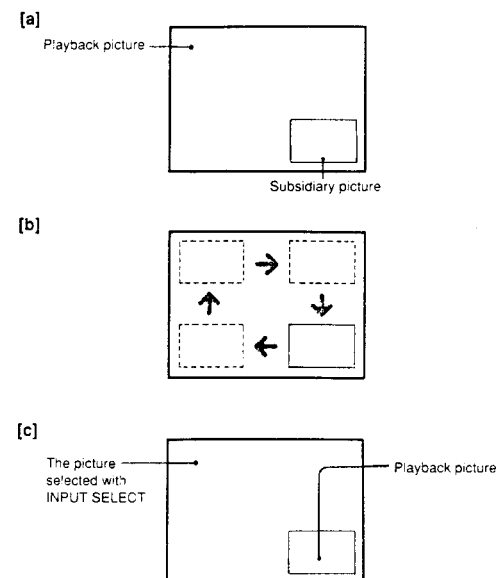
Press **P in P** again.
See illustration [c].

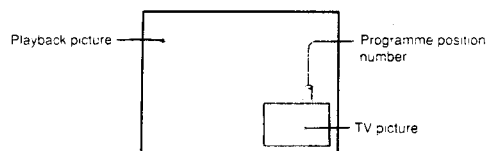
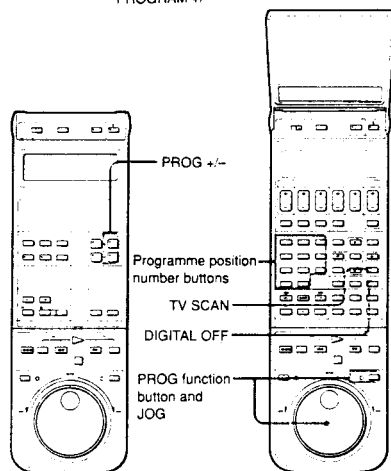
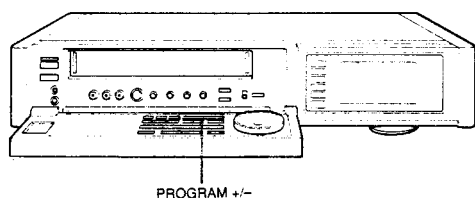
Turning off the subsidiary picture

Press **DIGITAL OFF**.

Note

- If no recorded portion is played back at a speed except the normal one, the subsidiary picture will not be displayed.
- If **TUNER** mode is selected and no TV programme is being broadcast, a disturbed picture may be displayed on the subsidiary screen.



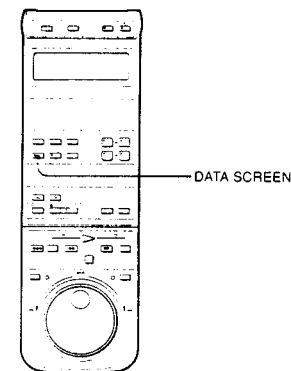
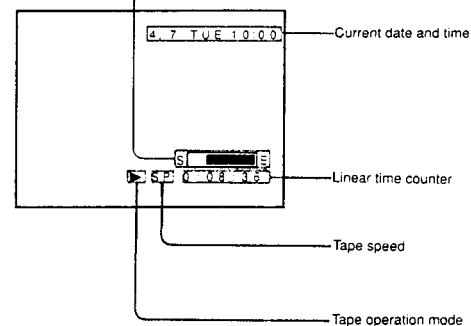
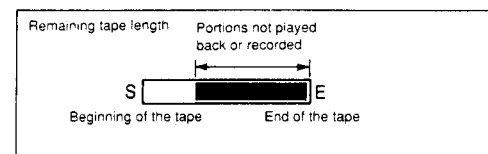


Watching TV Programmes in Succession — TV SCAN

You can watch each TV programme for a few seconds in the order of programme position numbers.

Press TV SCAN during playback.
After all the preset programmes are displayed, the first programme will appear again.

- **Viewing the desired programme continuously**
Press the programme position number buttons, PROG +/- or press the PROG function button to light the indicator and turn JOG on the Commander or press PROGRAM +/- on the VTR.
- **Turning off the subsidiary picture**
Press DIGITAL OFF.



Data Screen

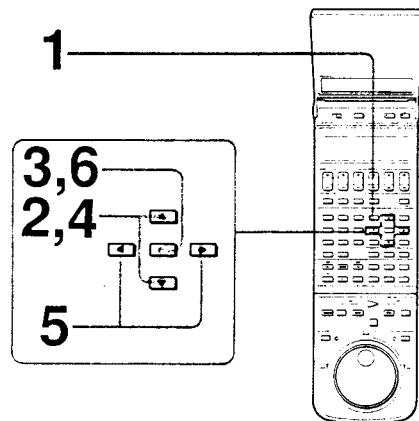
Data screen information illustrated on the left will automatically appear on the screen during playback or recording as a reference. Note, however, that the data screen will not be displayed in the following cases:

- When the VTR-TV connection is made via the LINE OUT VIDEO jack.
- When the VTR is in slow motion or playback pause mode.

- **To erase or display the data screen**
Press DATA SCREEN.

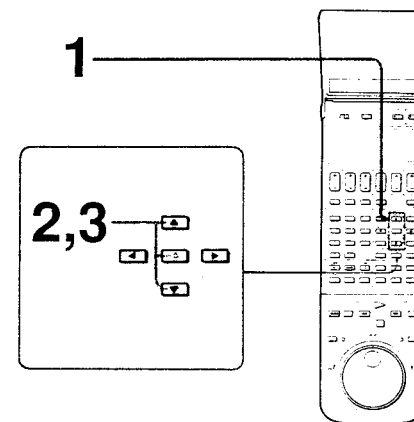
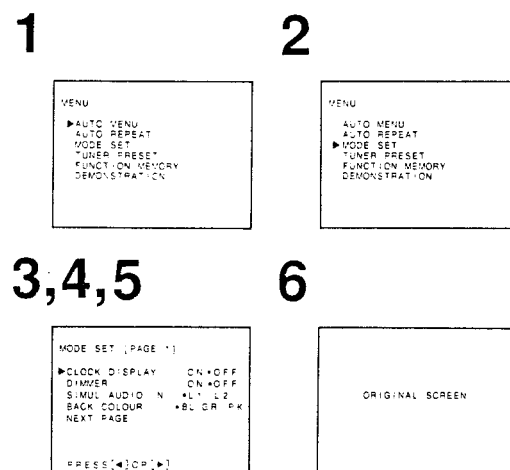
Notes on the remaining tape length indicator

- The remaining tape length indicator only shows the approximate amount of tape left.
- The indication may shift vertically during the fast-forward or rewind mode.
- It may not operate properly when a short tape, such as the E-30 and VHS-C cassettes, or when a non-standardized tape is inserted.



To Erase the Current Date and Time from the Data Screen

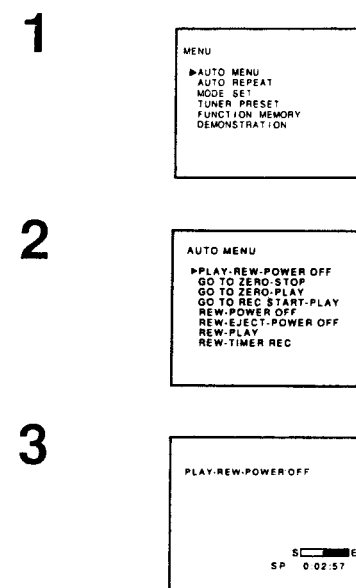
- 1 Press MENU
The main MENU appears.
- 2 Move cursor with ▲ or ▼ to MODE SET.
- 3 Press EXE.
If the MODE SET [PAGE 2] menu appears, move cursor with ▼ or ▲ to PREVIOUS PAGE and press EXE. The MODE SET [PAGE 1] menu is displayed.
- 4 Move cursor with ▲ or ▼ to CLOCK DISPLAY.
- 5 Press ◀ or ▶ to move the dot to OFF to erase the current date and time and to ON to display them.
- 6 Press EXE to store the setting and return to the original screen.



Assigning a Desired Operation Mode — AUTO MENU

Guided by the AUTO MENU, you can make the VTR enter the desired operational sequence automatically.

- 1 Press MENU while the VTR is in the stop mode.
The main MENU appears.
- 2 Move cursor with ▲ or ▼ to AUTO MENU and press EXE.
The AUTO MENU appears.
- 3 Move cursor with ▲ or ▼ to the desired operational sequence and press EXE.
The selected operation will begin. The selected operating mode will be superimposed on the TV screen for a few seconds. The AUTO indicator will light in the display window during AUTO MENU operation.



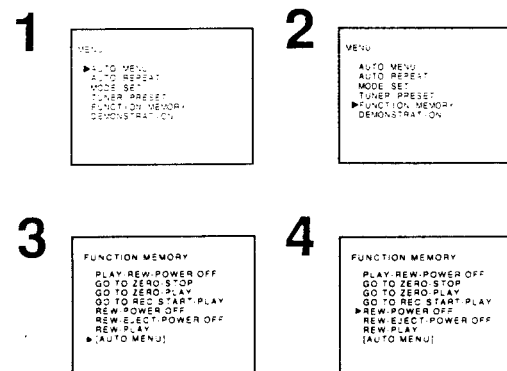
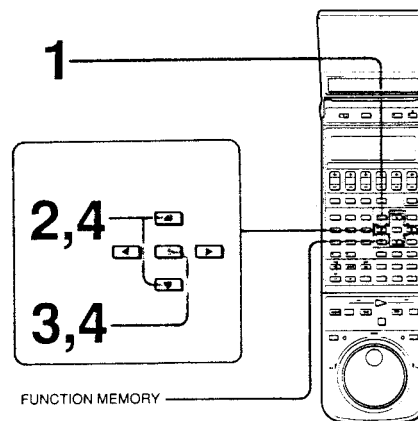
Note on AUTO MENU operation
AUTO MENU cannot be operated if there is no cassette installed or if the VTR is in modes other than stop mode. A short beep alerts you if the AUTO MENU is not operable.

Note on "GO TO REC START — PLAY"
The recording start point data will be erased from the memory after the following operations and "GO TO REC START — PLAY" will not be operable.

- When COUNTER RESET is pressed.
- When cassette is ejected and re-inserted.
- When HIGH SPEED REWIND is pressed.

Auto Menu Modes

- **PLAY — REW — POWER OFF**
plays back the tape, rewinds the tape when the end is reached, and turns the power off.
- **GO TO ZERO — STOP** searches for the counter zero point and stops. See page 48.
- **GO TO ZERO — PLAY** searches for the counter zero point and starts playback. See page 48.
- **GO TO REC START — PLAY** searches for the recording start point and starts playback.
- **REW — POWER OFF** rewinds the tape to the beginning and turns the power off.
- **REW — EJECT — POWER OFF** rewinds the tape to the beginning, ejects the cassette, and turns off the power.
- **REW — PLAY** rewinds the tape to the beginning and starts playback.
- **REW — TIMER REC** rewinds the tape to the beginning and enters the timer recording standby mode for timer recording when a timer recording is preset. A cassette with its safety tab removed will be ejected.
When the VTR is in the timer recording standby mode, 1) press **TIMER REC ON OFF** to cancel the standby mode, 2) turn on the power of the VTR, 3) call up the **AUTO MENU** referring to page 35.

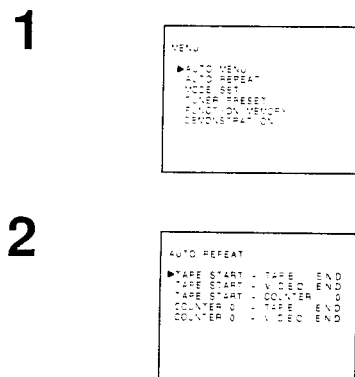


Assigning an Auto Menu Mode to the FUNCTION MEMORY Button

One of the AUTO MENU modes can be assigned to the FUNCTION MEMORY button on the Commander.

- 1 Press MENU.**
The main MENU appears.
- 2 Move cursor with ▲ or ▼ to FUNCTION MEMORY.**
- 3 Press EXE.**
The FUNCTION MEMORY menu appears.
- 4 Move cursor to the desired operational sequence and press EXE.**
The selected operation will be activated every time FUNCTION MEMORY is pressed when the VTR is in stop mode.

If you have selected "AUTO MENU" in step 4, the AUTO MENU will be displayed immediately after FUNCTION MEMORY is pressed, providing a short cut to the AUTO MENU.



You can make the VTR to repeat playback of a certain portion of the tape automatically.

- 1** Press **MENU** while the VTR is in the stop mode.
The main **MENU** appears.
- 2** Move cursor with **▲** or **▼** to **AUTO REPEAT** and press **EXE**.
The **AUTO REPEAT** menu appears.
- 3** Move cursor with **▲** or **▼** to the desired item you want to play back repeatedly and press **EXE**.
The VTR will rewind or advance the tape rapidly to the start point of the selected repeat portion and start playback. Playback of that portion will repeat **five times** and then the VTR will rewind the tape to the start point. The **AUTO** indicator will light in the display window during repeat playback.

- **To stop playback**
Press ■ STOP on the VTR or the Commander.

- If you press any tape operation button during repeat playback, AUTO REPEAT will be released.
- AUTO REPEAT cannot be operated if there is no cassette installed or if the VTR is in modes other than stop mode.

A short beep alerts you if the AUTO REPEAT is not operable.

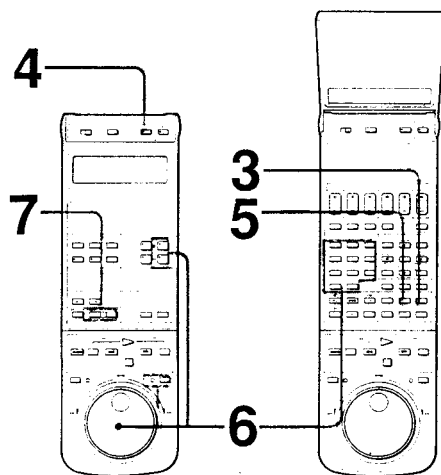
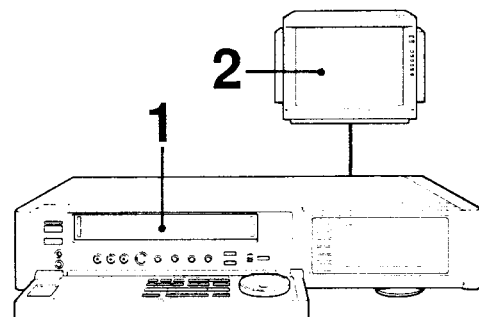
- **TAPE START—TAPE END** repeats playback from the beginning to the end of the tape.
- **TAPE START—VIDEO END** repeats playback from the beginning of the tape to the end of the recorded portion.
- **TAPE START—COUNTER 0** repeats playback from the beginning of the tape to the counter zero point.
- **COUNTER 0—TAPE END** repeats playback from the counter zero point to the end of the tape.
- **COUNTER 0—VIDEO END** repeats playback from the counter zero point to the end of the recorded portion of the tape.

Before activating AUTO REPEAT, press COUNTER RESET on the Commander to set the tape counter to 0H00M00S at the desired point.

The VTR normally detects a blank of about 10 seconds on the tape as "VIDEO END." However, for about 30 seconds from the beginning of the tape, the VTR does not do this. Accordingly, AUTO REPEAT will not work correctly in the following cases:

- When there is a blank of more than 10 seconds in the assigned repeat portion (more than 40 seconds at the beginning).
- When there is a blank of less than 10 seconds after the recorded portion to be played back repeatedly.
- When the tape is recorded to its end. (Assign the menu including "TAPE END.")

Recording TV Programmes



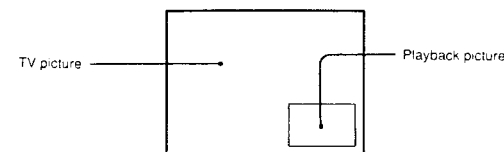
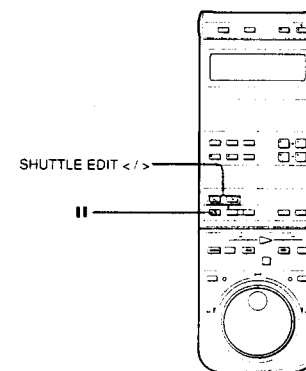
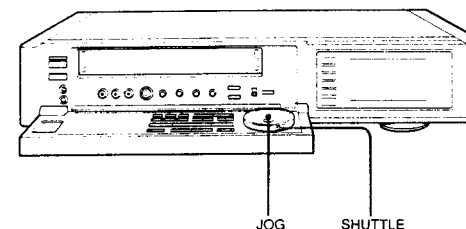
Before You Begin

- Check that all of the preparations are complete.
- The buttons on the VTR with the same name or mark can be used in the operation below as well.
- Data screen displays will not be recorded on the tape.

Operation

- 1 Insert a cassette.
- 2 Turn on the TV.
Set to the programme position for the VTR playback if VTR-TV connection is made only via the aerial sockets. Select VTR input if VTR-TV connection is via the EURO-AV (LINE 1) connector or LINE OUT VIDEO AUDIO jacks.
- 3 Press INPUT SELECT so that the TUNER indicator appears in the display window.
- 4 Press TV-VTR so that the VTR indicator lights in the display window.
(Only when connection is made via EURO-AV (LINE 1).)
- 5 Select the recording speed, SP or LP.
- 6 Select the programme position to be recorded in any of the following ways:
 - Press PROG + --.
 - Press the programme position number buttons. To select 23, press ---, then 2 and 3. To select 9, press 0 and 9.
 - Press the PROG function button to light the indicator and turn JOG on the Commander. Turn it clockwise for higher numbered programme positions; counterclockwise for lower numbered programme positions.
- 7 Press the right button while pressing ● REC.
Recording will begin. When the tape reaches the end, it will be automatically rewound to the beginning. Pressing the ● REC button on the VTR also activates the recording.

To stop recording, press ■.



To Stop Recording Momentarily at an Unwanted Scene

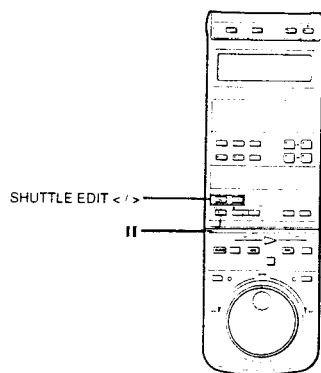
- 1 Press II when an unwanted scene appears.
Recording is stopped and the VTR enters the recording pause mode.
- 2 Press II again to resume recording at the desired scene.

To Cut Out an Unwanted Scene by Recording Over it

- 1 Press II during recording to enter the recording pause mode.
- 2 Locate the point where you wish to continue recording using JOG, SHUTTLE on the VTR or SHUTTLE EDIT on the Commander.
The unit will enter the P in P mode and the playback picture will be displayed on the subsidiary screen.
(For details on the operation, see below.)
- 3 At the desired point, release JOG, SHUTTLE or SHUTTLE EDIT.
- 4 Press II to resume recording.

How to use the JOG dial and the SHUTTLE ring on the VTR

- Turn the dial and the ring during playback or in the recording pause mode.
- Using JOG, playback speed and the direction can be selected according to the turning speed and direction.
- Using SHUTTLE, playback speed and the direction can be selected according to the turning angle and direction. Release the dial or ring to enter the playback pause mode or resume the recording pause mode.
- If the dial or ring is turned in the recording pause mode, the VTR enters the P in P mode and the playback picture appears on the subsidiary screen.



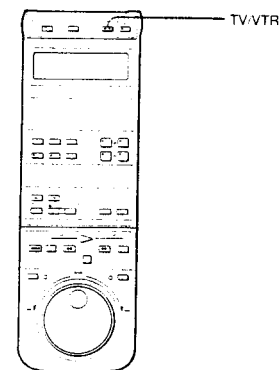
How to use the SHUTTLE EDIT buttons on the Commander

Use the buttons in the playback pause mode or in the recording pause mode. Keep < pressed to obtain 1/5 playback picture in reverse, and keep > pressed to obtain 1/5 playback picture. Release the button to resume the playback pause or recording pause mode.

- If the button is pressed in the recording pause mode, the VTR enters the P in P mode and the playback picture appears on the subsidiary screen.

To record over from playback mode

- 1) Locate the point from where you wish re-record using JOG SHUTTLE on the VTR or the Commander or SHUTTLE EDIT and release it.
- 2) Press ● REC and its right button to enter the recording pause mode.
- 3) Press II to start recording.



Watching a TV Broadcast While Recording Another

■ If VTR-TV connection is made using the EURO-AV (LINE 1) connector

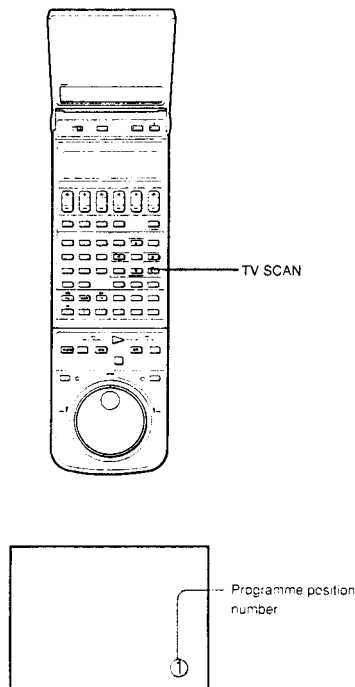
Press TV VTR to turn off the VTR indicator. The programme selected on the TV appears on the screen.

■ If VTR-TV connection is made using the LINE OUT VIDEO/ AUDIO jacks

Select the tuner input on the TV and change the programme position on the TV.

■ If VTR-TV connection is made using only the aerial sockets

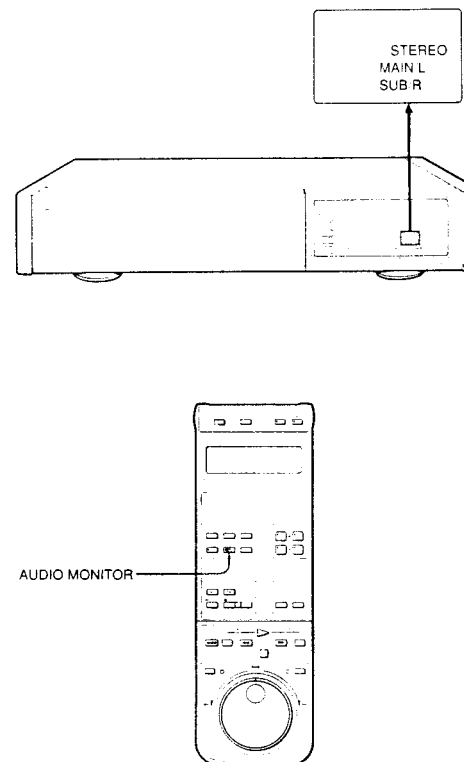
Change the programme position on the TV.



Watching TV Programmes in Succession — TV SCAN

When you are watching a TV programme, press TV SCAN. Each preset programme will be displayed for a few seconds in the order of programme position numbers. When all the programmes are displayed, the normal display will resume.

Recording Stereo/Bilingual Programmes



SLV-777/777VP/777NC

The SLV-777/777VP/777NC receives and records stereo/bilingual programmes based on the "Zweiton" system adopted in West Germany.

■ Stereo programme

When a stereo programme is received, STEREO appears in the display window.

The AUDIO MONITOR button does not function for the stereo programmes of the Zweiton system.

■ Bilingual programme

When a bilingual programme is received, MAIN/L appears in the display window.

Press the AUDIO MONITOR button repeatedly until the desired sound is heard. The sound is selected cyclically in the order as follows:

Display	Sound to be heard
MAIN L	Main sound
SUB R	Sub sound
MAIN/L	Main sound on the left channel
SUB R	Sub sound on the right channel

■ To record

A stereo or bilingual programme will be recorded on the hi-fi video track and normal audio track as follows regardless of the sound being monitored.

Track	Sound to be recorded	
	Stereo	Bilingual
Hi-fi video		
Left channel	Left channel	Main
Right channel	Right channel	Sub
Normal audio	Monaural (L and R channels mixed)	Main

SLV-777UB/777NC

The SLV-777UB/777NC receives and records stereo/bilingual programmes based on the "NICAM" system adopted in the United Kingdom and Nordic countries.

■ Stereo programme

When a stereo programme is received, STEREO and NICAM appear in the display window. Press the AUDIO MONITOR button to select the sound to be heard. Each time AUDIO MONITOR is pressed, the stereo (NICAM L and R channels) or the standard sound is selected alternately.

Display	Sound to be heard
STEREO	Left channel sound on the left channel Right channel sound on the right channel
None	Standard sound

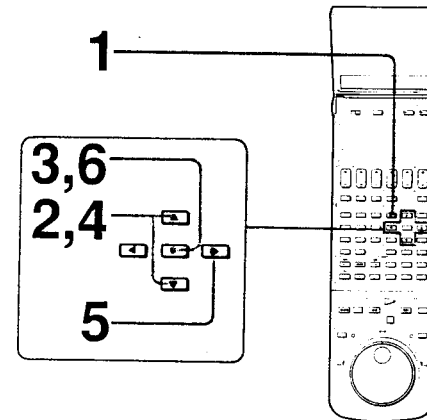
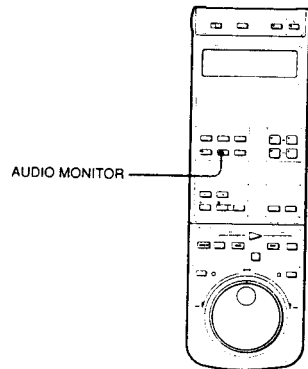
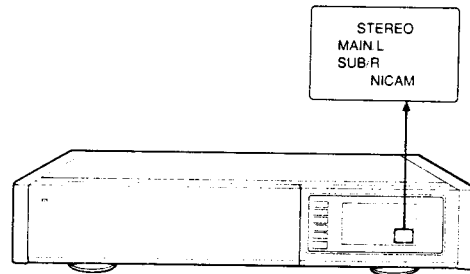
■ Bilingual programme

When a bilingual programme is received, NICAM and MAIN L appear in the display window. Press the AUDIO MONITOR button repeatedly until the desired sound is heard. The sound is selected cyclically in the order as follows:

Display	Sound to be heard
MAIN L	Main sound
SUB R	Sub sound
MAIN L SUB R	Main sound on the left channel Sub sound on the right channel
None	Standard sound

Understanding the NICAM broadcast

NICAM broadcasting has two-channel digital sounds called NICAM L and R channels in addition to the standard sound. The NICAM L and R are assigned to the stereo left and right channels or the main and sub sounds of a bilingual programme. The standard sound of most NICAM broadcasts is the mixed sound of the left and right channels for a stereo programme, and the main sound for a bilingual programme.



■ To record NICAM broadcasts

- Before recording a NICAM broadcast, press MENU. The main MENU appears.
- Move cursor with ▲ or ▼ to MODE SET.
- Press EXE. If the MODE SET [PAGE 1] menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE. The MODE SET [PAGE 2] menu appears.
- Move cursor with ▲ or ▼ to Hi-Fi AUDIO.
- Press ► to move the dot to NICAM.
- Press EXE to store the setting.

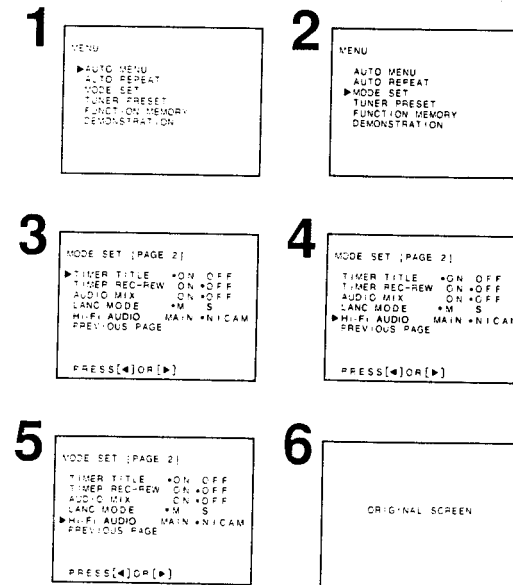
With NICAM setting, NICAM broadcasts will be recorded as in the following table.

Track	Sound to be recorded	
	Stereo	Bilingual
Hi-fi video		
Left channel	Left channel	Main
Right channel	Right channel	Sub
Normal audio	Standard	Standard

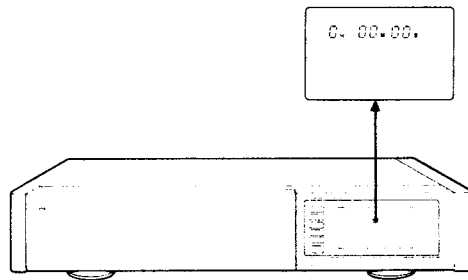
• When there is no NICAM broadcast, the standard sound will be recorded on both the hi-fi video track and the normal audio track.

■ To record the standard sound only

Follow the operations above and set Hi-Fi AUDIO to MAIN in step 5. The standard sound will be recorded on the left and right channels of the hi-fi video track and the normal audio track.

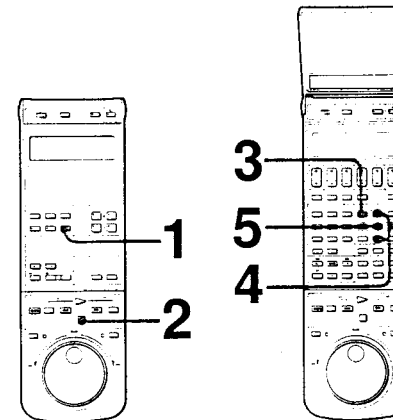
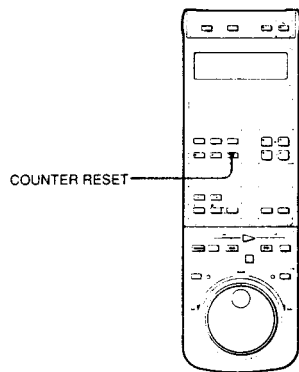


Use of the Tape Counter



Understanding Counter Zero Position

The tape counter on this VTR can be used as a reference when you wish to locate a certain scene after recording or playback. Press COUNTER RESET to set the counter to "0H00M00S" (counter zero position) before operation. The VTR will keep counting the length of tape being played back or recorded. Note, however, that the tape counter will not count the portions of tape with no signals recorded. This VTR automatically resets the counter to zero whenever a cassette is inserted. Two additional features using COUNTER RESET are available on this VTR: Tape Return and Tape Return Play.



AUTO MENU

PLAY-REW-POWER OFF
▶GO TO ZERO-STOP
GO TO ZERO-PLAY
GO TO REC-START-PLAY
REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
REW-TIMER REC

AUTO MENU

PLAY-REW-POWER OFF
GO TO ZERO-STOP
▶GO TO ZERO-PLAY
GO TO REC-START-PLAY
REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
REW-TIMER REC

Tape Return

The VTR can search for the counter zero position and stop. This function is useful for locating a particular scene after recording or playback.

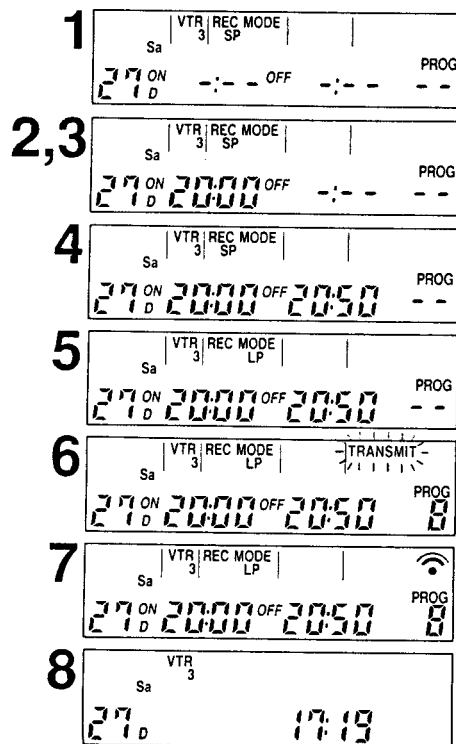
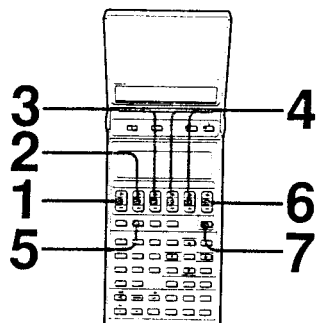
- 1 Press COUNTER RESET at the desired scene during recording or playback.
- 2 Press [] to stop after recording or playback.
- 3 Press MENU and select AUTO MENU.
See "Assigning a Desired Operation Mode" for operation.
- 4 Move cursor to "GO TO ZERO-STOP."
- 5 Press EXE.

Tape Return Play

The VTR will even search and start playback from the counter zero position after recording or playback.

- 1 Repeat steps 1 to 3 in the Tape Return operation.
- 2 Move cursor to "GO TO ZERO-PLAY".
- 3 Press EXE.

Timer Activated Recording



Timer Recording on this VTR

Up to eight preselected programmes can be set on this VTR, up to one month in advance.

Before You Begin

- Turn on the TV and adjust it to view the VTR output.
- Check to see that the clock on the Commander and the VTR shows the present time.
- To operate the SLV-777VP, read "VPS Function" first. (See page 59.)

Operation

Example: To record a programme broadcast from 20:00 to 20:50 on Saturday, July 27, 1991 on programme position 8 in LP mode.

- 1 Open the cover of the Commander and press D until 27 appears. The day of the week, Sa (Saturday), is automatically set.
- 2 Set the recording start hour with TURN ON H.
- 3 Set the recording start minute with TURN ON M.
- 4 Set the recording end hour and minute with TURN OFF H and M referring to step 2 and 3.
- 5 Set the recording speed, SP or LP, with REC MODE.
- 6 Set the programme position with PROG. The TRANSMIT indicator blinks to indicate that all of the items are entered.
- 7 Point the Commander to the VTR and press TRANS. With a beep sound, the settings appear in the display window of the VTR for a few seconds and the VTR enters the timer recording standby mode. The PROGRAM LIST appears on the screen for a few seconds if the VTR is turned on.
- 8 Close the cover of the Commander so that the present time appears on the LCD. The VTR turns on, starts recording at the selected time, and turns off after recording ends.

Date indication

EVERY Su
Every Sunday

EVERY Su
Mo Tu We
Th Fr Sa
Every day

EVERY Mo
Every Monday

EVERY Mo Tu We
Th Fr Sa
Every day except Sunday

EVERY Tu
Every Tuesday

EVERY Mo Tu We
Th Fr
Every day except Saturday and Sunday

EVERY We
Every Wednesday

EVERY Sa
Every Saturday

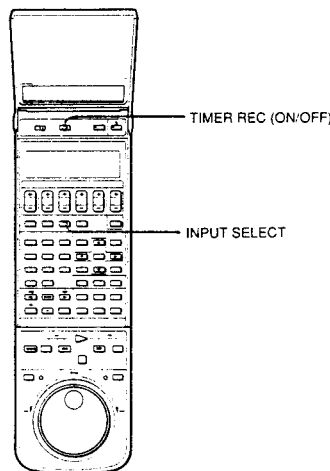
EVERY Th
Every Thursday

EVERY Fr
Every Friday

Daily/Weekly Recording

This VTR can be preset to record the same programme each day of the week (daily recording) or the same programme on a specific day of every week.

Press D - (minus) on the Commander to change the LCD in the order shown in the illustration instead of step 1 in the "Operation." When the desired recording mode is set and transmitted to the VTR, the corresponding indicator lights in the display window.



To Set Other Programmes

Repeat steps 1 to 7 in "Operation" before step 8.

To Stop Timer Recording

Press TIMER REC ON/OFF.

To Record from Equipment Connected to EURO-AV (LINE 1), EURO-AV (LINE 3), or LINE IN 2 VIDEO/AUDIO

Press INPUT SELECT anytime in step 1 to 6 to change the indication from PROG -- to LINE L1 (for the EURO-AV (LINE 1) connector), LINE L2 (for the LINE IN 2 VIDEO AUDIO jacks) or LINE L3 (for the EURO-AV (LINE 3) connector).

To Record TV Programme and Audio Signals from Equipment Connected to EURO-AV (LINE 1) or LINE IN 2 AUDIO Simultaneously

Set the desired programme position and press INPUT SELECT to indicate SIMUL in step 6. For simulcast recording, see page 68.

If a short beep sounds repeatedly when TRANS is pressed

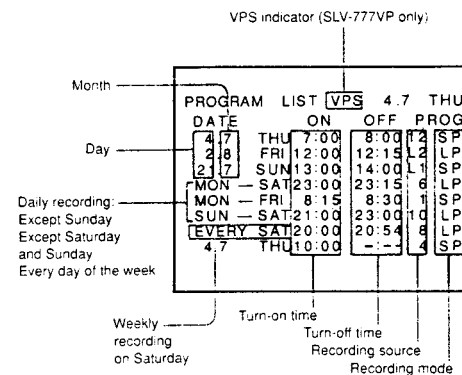
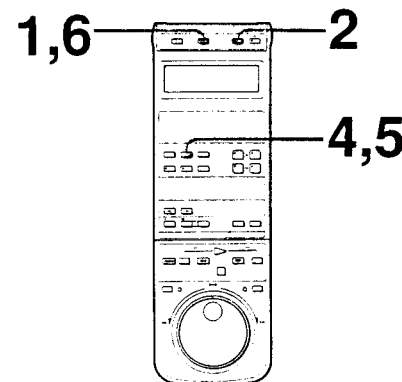
- No cassette is inserted.
- An illogical setting has been made.
- Timer setting can only be performed when the VTR is in turned off, stop, or timer recording mode.
- Eight timer settings have already been made.
- The tape is at its end.

If the tape is ejected after pressing TRANS

The safety tab of the inserted cassette is removed.

Understanding "one month"

This VTR sets the timer to record programmes which are to be broadcast between today and one day before the same date of the next month.



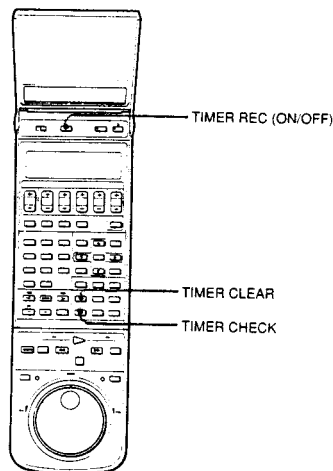
Checking the Timer Settings

The timer settings can be checked while the VTR is in the timer recording standby mode by displaying the programme list on the TV screen.

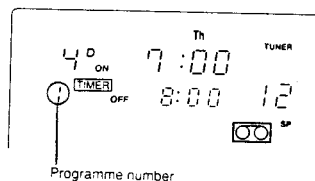
- 1 Press TIMER REC ON/OFF to turn off the TIMER REC indicator in the display window of the VTR.
- 2 Turn on the VTR and press TV-VTR to light the VTR indicator in the display window.
(Only when connection is made via EURO-AV (LINE 1).)
- 3 Turn on the TV.
Set to the programme position for VTR if VTR-TV connection is made via the aerial sockets. Select VTR input on the TV if VTR-TV connection is made via EURO-AV (LINE 1).
- 4 Press TIMER ON SCREEN.
The programme list appears.
- 5 Press TIMER ON SCREEN again to return to the original screen.
- 6 Press TIMER REC ON/OFF to return to the timer recording standby mode.

Checking the settings without releasing timer recording standby mode

Press TIMER CHECK. Each press changes the programme in the display window one after another.



PROGRAM LIST				4.7 THU
DATE	ON	OFF	PROG	
▶ 4.7 THU	7:00	8:00	12 SP	
2.8 FRI	12:00	12:15	L2 LP	
21.7 SUN	13:00	14:00	L1 SP	
MON — SAT	23:00	23:15	6 LP	
MON — FRI	8:15	8:30	1 SP	
SUN — SAT	21:00	23:00	10 LP	
EVERY SAT	20:00	20:54	8 LP	
4.7 THU	10:00	---	4 SP	



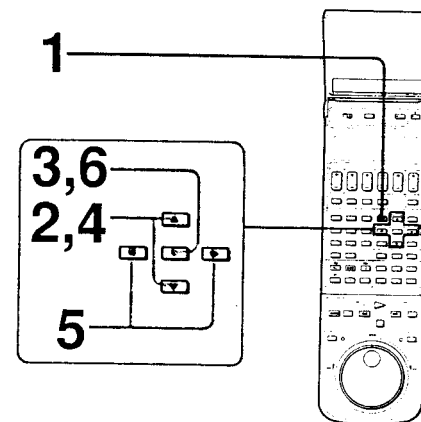
Clearing/Correcting the Timer Setting

■ Referring to the programme list

- 1 Display the programme list referring to steps 1 to 4 in "Checking the Timer Settings."
- 2 Press **TIMER CHECK** to call up and move cursor to the setting you want to clear or correct.
- 3 To clear the setting, press **TIMER CLEAR**.
If there are other timer settings on the list, press **TIMER REC ON OFF** to return to the timer recording standby mode.
To correct the setting, re-enter all of the items using the Commander. Refer to "Timer Activated Recording — Operation" steps 1 to 7.
The VTR automatically enters the timer recording standby mode.

■ Clearing the setting without the programme list

- 1 Press **TIMER REC ON OFF**.
- 2 Press **TIMER CHECK** repeatedly until the desired programme appears in the display window.
- 3 Press **TIMER CLEAR**.
- 4 Press **TIMER REC ON OFF** to return to the timer recording standby mode if there are other programmes set for timer recording.

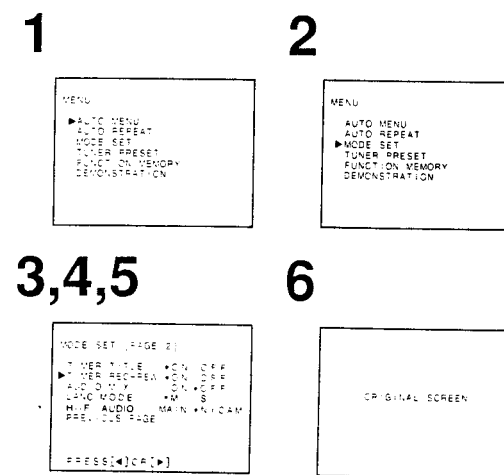


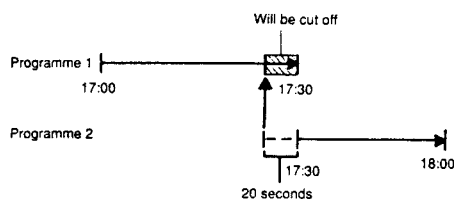
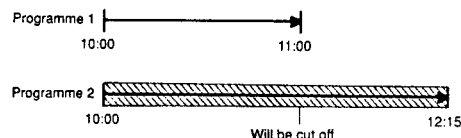
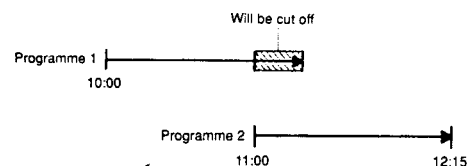
To Automatically Rewind the Tape After Timer Recording

- 1 Before setting the timer, press **MENU**.
- 2 Move cursor with **▲** or **▼** to **MODE SET** in the main menu.
- 3 Press **EXE**.
If the **MODE SET [PAGE 1]** menu appears, move cursor with **▲** or **▼** to **NEXT PAGE** and press **EXE**. The **MODE SET [PAGE 2]** menu is displayed.
- 4 Move cursor with **▲** or **▼** to **TIMER REC — REW.**
- 5 Press **◀** or **▶** to move the dot to **ON**. To cancel this setting, move the dot to **OFF**.
- 6 Press **EXE** to store this setting and return to the original screen.

Using the VTR during Timer Recording Standby Mode

- 1 Press **TIMER REC ON/OFF** to turn off the **TIMER REC** indicator.
- 2 Turn on the power of the VTR. The VTR is ready to be used.
- 3 After using the VTR, press **TIMER REC ON OFF** to light the **TIMER REC** indicator. The VTR re-enters the timer recording standby mode.





When the Timer Settings Overlap

■ If the setting of two programmes overlap

The recording of the following programme will begin automatically before the proceeding programme ends.

■ If the turn-on time of two programmes are the same

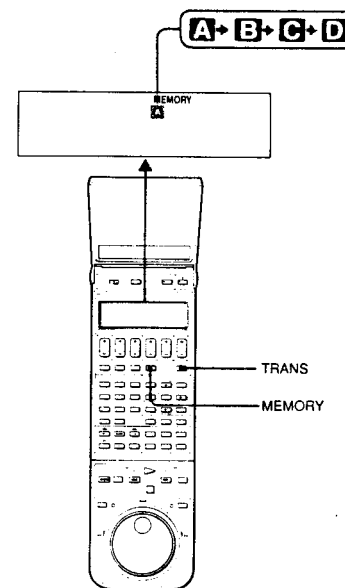
The VTR will record the programme with the smaller programme number or listed first on the programme list. The programme with the larger programme number or listed lower in the list will be erased.

■ If the recording end time of programme 1 and the recording start time of programme 2 are the same

The last 20 seconds of programme 1 will not be recorded because the VTR will enter the recording pause mode for programme 2 and records the timer title for programme 2 before programme 1 ends.

Power interruption during timer recording standby timer recording mode

- If the power interruption lasts less than three hours, the VTR will enter the recording standby mode or resume timer recording when the power is recovered.
- If the power interruption exceeds three hours during the recording standby mode, the timer settings will be cleared. Reset the clock and re-enter the items for timer recording again. If the power interruption occurred during timer recording, the recording will stop and the VTR will be turned off.



To Store the Frequently Used Timer Settings in the Commander

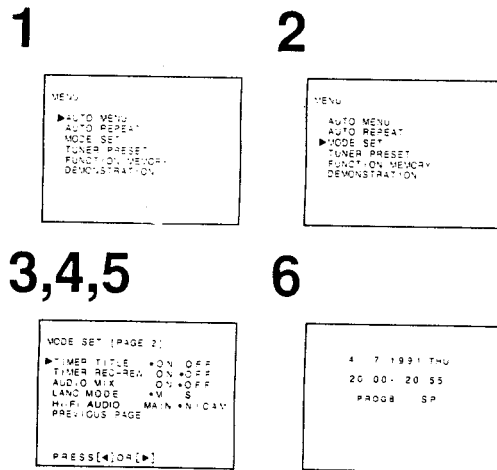
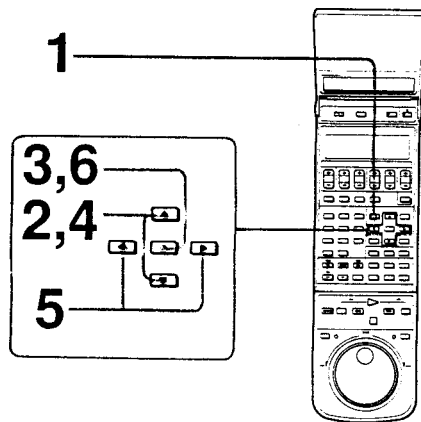
The items selected for one timer recording programme will be erased from the LCD when the Commander cover is closed, and cleared from the programme list as well when recording is over. However, the turn-on/turn-off time and the programme position of up to four programmes can be stored in the Commander to be recalled later. This enables you to quickly access the most frequently used items, especially your favorite weekly programme, since the recording date will automatically be shifted to the next week after the recording is over.

■ Storing the parameters

- 1 Press **MEMORY** to indicate **MEMORY A**.
- 2 Set all of the items for timer recording referring to "Timer Activated Recording — Operation."
- 3 Press **MEMORY** to change the indication to **B**, **C**, or **D**, and repeat step 2 for other programmes. The items set will be kept in the memory even when the Commander cover is closed.

■ Recalling and re-entering the items

- 1 Press **MEMORY** to call up the desired memory indication (**A**, **B**, **C**, or **D**).
- 2 Make whatever changes necessary.
- 3 Press **TRANS**. The VTR enters the timer recording standby mode.



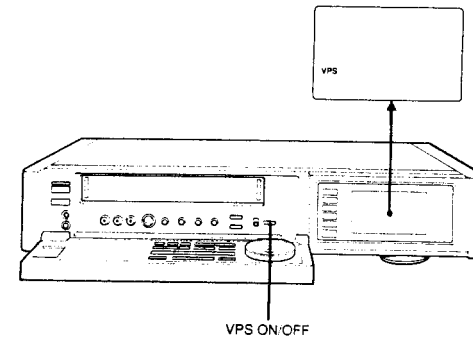
Recording a Timer Title

A timer title screen consisting of the date of recording, recording start/end time, the programme position and recording mode can be recorded on the tape for 3 seconds before the programme. The timer title is convenient for locating a desired programme when several programmes are recorded on a single tape.

- 1 Before setting the timer, press **MENU**.
The main menu appears.
- 2 Move cursor with **▲** or **▼** to **MODE SET**.
- 3 Press **EXE**.
If the **MODE SET [PAGE 1]** menu appears, move cursor with **▲** or **▼** to **NEXT PAGE** and press **EXE**. The **MODE SET [PAGE 2]** menu is displayed.
- 4 Move cursor with **▲** or **▼** to **TIMER TITLE**.
- 5 Press **◀** or **▶** to move the dot to **ON** to record the timer title, and **OFF** to record without timer title.
- 6 Press **EXE** to store the setting.
If **ON** is selected in step 5, the timer title will automatically be recorded before the timer recording starts.

SLV-777VP only

The timer title cannot be recorded if the **VPS** indication is lit in the **VTR**'s display window, regardless of the setting in the **MODE SET [PAGE 2]** menu.



VPS (Video Programme System) Function (SLV-777VP only)

The German broadcasting system transmits VPS signals with the TV programmes which assure that your timer recording will be performed without missing any portion of it regardless of any earliness, time delay, extension, or broadcast interruption which might occur during that programme.

Operation

- 1 Check whether **VPS** is transmitted with the programme to be recorded.
- 2 Press **VPS ON/OFF** so that the **VPS** indicator lights in the display window.
- 3 Set the timer referring to "Timer Activated Recording — Operation."

Notes

- The **VPS** button is effective only when the **TIMER REC** indicator is turned off.
- If the **VPS** signal was not received on the **VTR** because it was too weak or because the station failed to transmit, timer recording will be performed without the **VPS** function regardless of the **VPS** indication.
- The recording will stop when the **VTR** receives a **VPS** programme interruption code during recording, for example, when an urgent news bulletin was inserted. As soon as the interrupted programme resumes, recording will continue.
- The timer title will not be recorded, regardless of the setting in the **MODE SET [PAGE 2]** menu, when the **VPS** function is activated.

*Hi-Fi AUDIO for SLV-777UB 777NC only

Quick Timer Recording

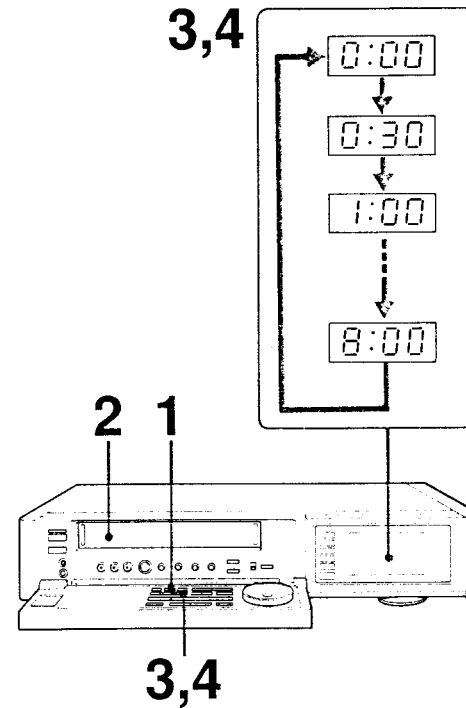
What is Quick Timer Recording?

The quick timer recording function provides a short cut to enter the timer recording mode or to use the timer to turn off the VTR after recording is over. The timer can be set to operate within 8 hours in units of 30 minutes.

Operation

If you are recording, skip steps 1 to 3.

- 1 Press INPUT SELECT** so that **TUNER** indicator is turned on.
- 2 Insert a cassette.**
- 3 Press QUICK TIMER.**
The **TIMER** indicator lights in the display window. While 0:00 and programme position number is blinking in the display window, select the desired programme number with **PROGRAM** $\leftarrow$. A cassette with its safety tab removed will be ejected.
- 4 Press QUICK TIMER again to start recording.**
Press **QUICK TIMER** again to set the recording duration within 30 seconds from step 3, otherwise the power will be turned off. Each press of **QUICK TIMER** changes the indication in the display window in units of 30 minutes.
- 5 The recording duration will decrease minute by minute until 0:00 when the VTR is automatically turned off.**



■ VPS standby mode

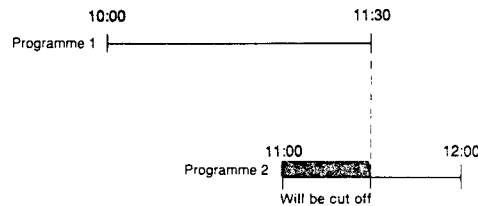
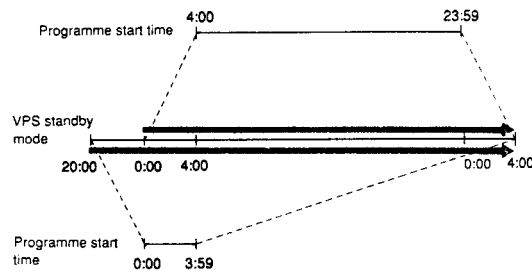
The VTR will enter the standby mode for VPS recording far before the turn-on time and remains in the standby mode passed the preset turn-on time until the VPS signal is received to prepare for any change in the actual broadcast time.

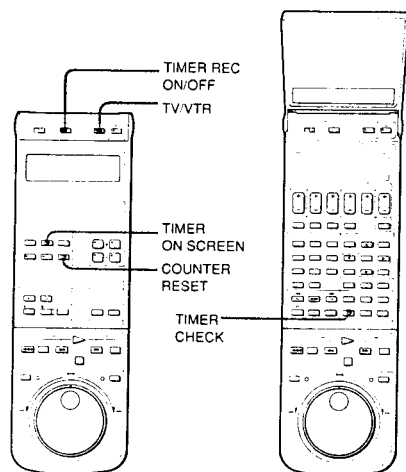
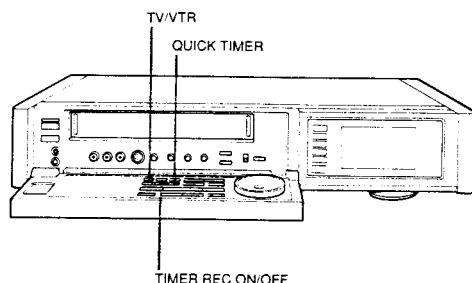
When the VPS timer recording is set for a programme which is expected to start between 4:00 and 23:59, the VTR will enter the standby mode at 0:00 that day and will keep on waiting for the VPS signal until 4:00 of the next day.

When the VPS timer recording is set for a programme which is expected to start between 0:00 and 3:59, the VTR will enter the standby mode at 20:00 the day before the recording day and will keep on waiting for the VPS signal until 4:00 on the next day.

■ If the actual recording time overlaps with the next timer recording programme

There may be cases when the actual broadcast time of two timer recording programmes overlap owing to the shift made by the VPS signal. In this case, the programme that was broadcast first always has priority. The recording of the second programme will begin only after the first programme is over.





■ Buttons operable during quick timer recording

- **TIMER REC ON OFF** stops quick timer recording.
- **QUICK TIMER** changes the recording duration.
- **TIMER ON SCREEN** displays the programme list.
- **TIMER CHECK** changes the programme number in the display window.
- **COUNTER RESET** resets the counter to zero.
- **TV/VTR** switches the screen to another programme received on the TV.

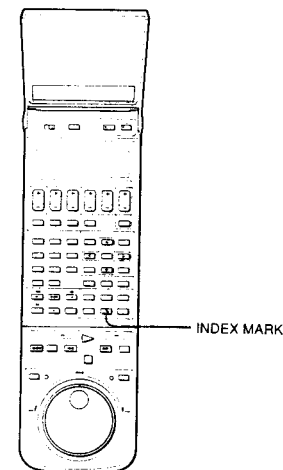
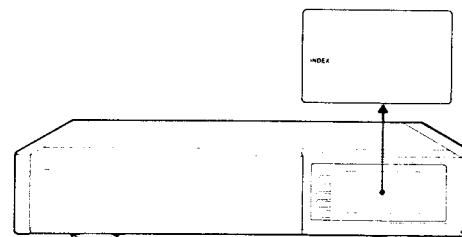
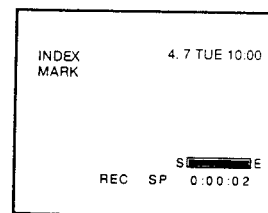
If power interruption occurs during quick timer recording

Recording will stop and the VTR will be turned off. If the power interruption lasted for less than three hours and if the power recovered within the quick timer duration, recording will resume from that instant.

If the VTR is in timer recording standby mode

Press **TIMER REC ON OFF** to turn off the indicator, then follow steps 4 and 5

Index Function



Marking Index Signals

The desired position on a tape can be located easily by detecting the index signals. There are two ways in which to mark index signals: automatic and manual. When the index signal is being marked, INDEX flashes in the display window and the INDEX MARK display will appear on the screen.

■ Automatic index mark

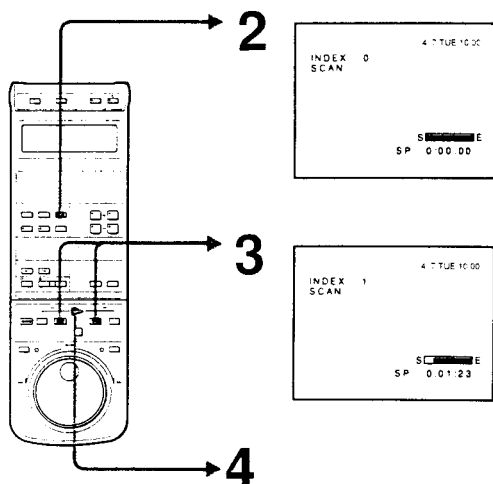
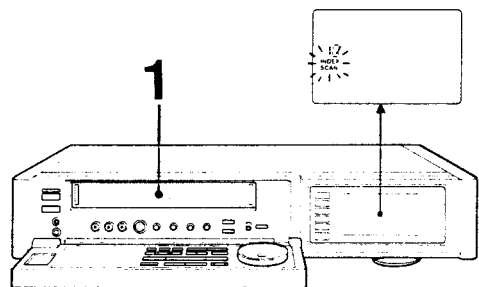
An index signal is automatically marked on the tape when the VTR starts recording.

■ Manual index mark

Index signals can be marked at desired scenes during recording or normal playback. Press INDEX MARK to mark an index.

Notes

- Leave an interval of more than 2 minutes between two index points so that the VTR can detect each INDEX signal accurately.
- The recorded sound will not be heard while marking an index signal. But the audio signal will not be erased.
- Index signals cannot be marked
 - on a tape whose safety tab is removed
 - on an unrecorded portion of the tape.
 - immediately before a point on the tape where the tape speed (LP or SP) changes

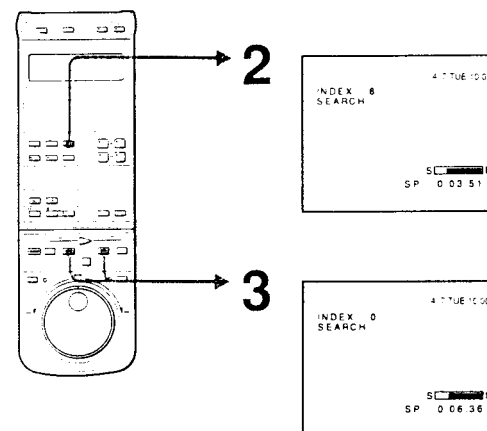
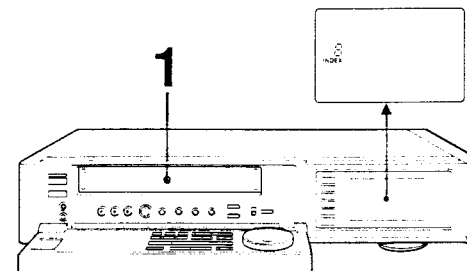


Playing Back from the Index Point — INDEX SCAN

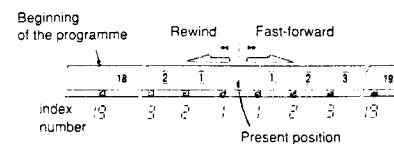
- 1 Insert a cassette with index signals marked.
- 2 Press INDEX once.
INDEX or SCAN indicator blinks alternately in the display window.
- 3 Press ◀ to play back from the previous programme.
Press ▶ to play back from the programme ahead.
The VTR will advance to the next or previous index signal. Then the VTR will play the tape for approximately 10 seconds, and then move to the next index in the selected direction. The index number changes one by one.
- 4 Press ▶ when the desired index signal is detected.

Locating an Index — INDEX SEARCH

Direct search of the desired index point can be performed by entering the number of how many indexes ahead or behind it is from the current tape position. The VTR counts down how many more indexes should be searched for and displays the sequence in the display window. Up to 19 indexes from the preset position can be searched.



- 1 Insert a cassette with index signals marked.
- 2 Press INDEX to show how many indexes should be counted to reach the desired scene.
- 3 Press ◀ if the index is behind or ▶ if the index is ahead of the current tape position.
The VTR starts searching and the index number will be counted down to zero.
- 4 Playback from the desired point starts.

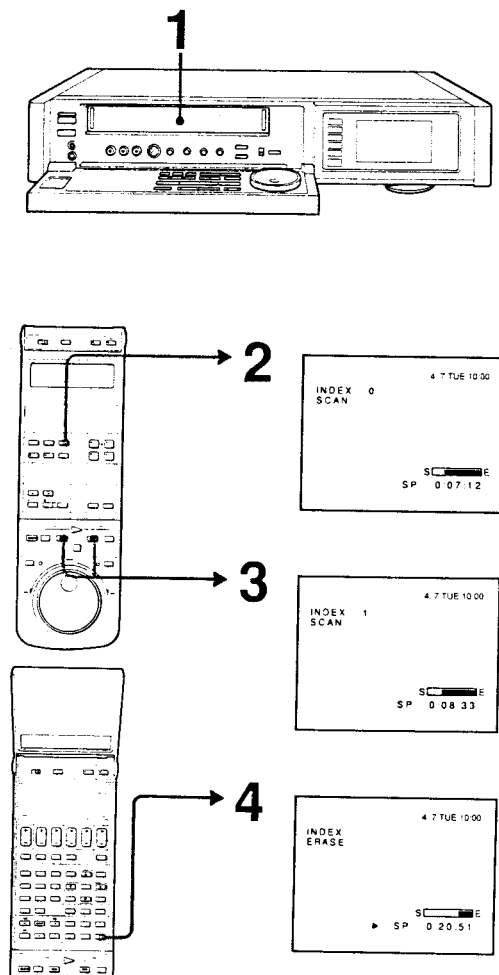


Audio Recording

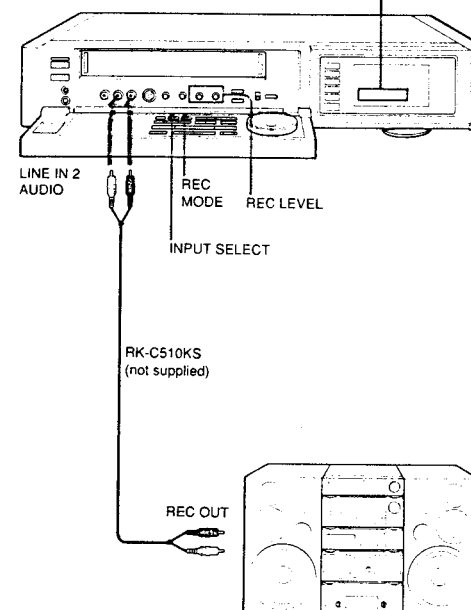
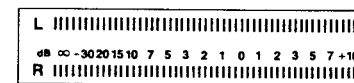
Erasing an Index

The index marked on the tape can be erased.

- 1 Insert a cassette with index signals marked.
- 2 Press INDEX once.
- 3 Press ◀ or ▶ to search for the index signal.
When the VTR detects an index signal, the VTR will play the tape for approximately 10 seconds from the index. If that is the index you want to erase, go to step 4. If that is not the index you want to erase, wait until the desired index is searched.
- 4 Press INDEX ERASE while the VTR is in step 3.
That index signal will be erased. While the index signal is being erased, the recorded sound will not be heard, but it will not be erased. After erasing, the VTR starts searching for an index signal again.



PEAK PROGRAM METER



The hi-fi recording system of this VTR allows recording of high quality stereo sound from an FM tuner, audio system, or other audio equipment.

Before You Begin

- Connect your audio system to the LINE IN 2 AUDIO jacks using the RK-C510KS audio connecting cable (not supplied).
- Set INPUT SELECT to LINE L2.
- Select REC MODE, SP or LP.

Adjusting the Audio Recording Level

Play the recording source. While observing the PEAK PROGRAM METER, adjust the REC LEVEL controls referring to the following guide.

When recording from a conventional record: The right-most element (+10) should light up sometimes.

When recording from a compact disc or PCM processor: The right-most element (+10) should light up only at the highest signal level.

Recording

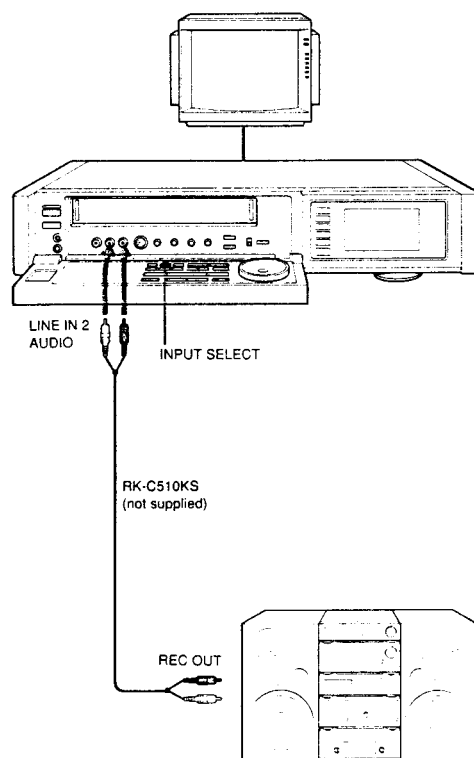
The recording procedure is the same as 'Recording TV Programmes' on page 40.

PCM Recording and Playback

You can perform PCM recording and playback on the video track by connecting a PCM digital audio processor to the LINE IN and OUT VIDEO jacks on this VTR. For details, refer to the instruction manual of the PCM digital audio processor.

Caution

To avoid damaging the speakers due to a wide dynamic range of a hi-fi recorded tape/disc, turn down the volume of the TV before playing back a hi-fi recorded tape/disc.



Simulcast Recording

You can record TV programme and the sound from other equipment such as an FM tuner, simultaneously. The audio signals from the TV receiver are recorded on the normal audio track and those from the connected equipment on the video track.

■ Before you begin

- Connect your audio equipment to the EURO-AV (LINE 1) connector or the LINE IN 2 AUDIO jacks.
- The EURO-AV (LINE 3) connector cannot be used for a simulcast recording.
- Press INPUT SELECT on this VTR to indicate SIMUL in the display window.
- Other settings are the same as "Audio recording" on the previous page.

■ To set SIMUL AUDIO IN

Select the audio input to which your audio equipment is connected.

- 1 Press MENU.
The main MENU appears.
- 2 Move cursor with ▲ or ▼ to MODE SET.
- 3 Press EXE.
If the MODE SET [PAGE 2] menu appears, move cursor with ▲ or ▼ to PREVIOUS PAGE and press EXE. The MODE SET [PAGE 1] menu appears.
- 4 Move cursor with ▲ or ▼ to SIMUL AUDIO IN.
- 5 Move the dot with ◀ or ▶ to L1 or L2 to which your audio equipment is connected.
- 6 Press EXE to store the setting and return to the original screen.

■ Operation

The recording procedure is the same as "Recording TV programmes" on page 40.

Tape Editing

Before You Begin

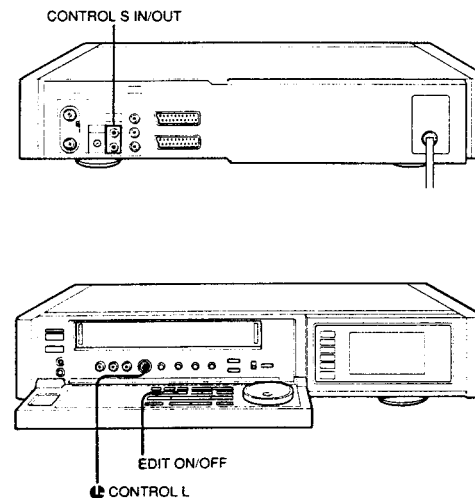
You can create your own video programme by editing with other VTRs. Take a look at the following examples to expand your pleasure in video operation.

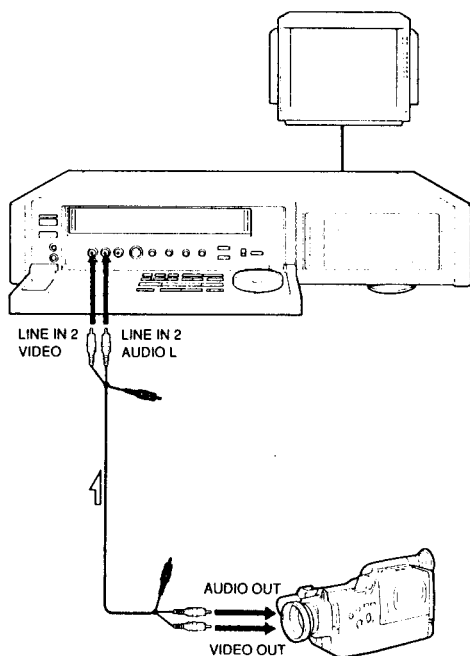
■ Use of the Sony control terminals

If your second VTR is equipped with Sony control terminals, CONTROL L or CONTROL S output or input, synchronized editing can be performed. Synchronized editing enables remote control of this VTR's playback/recording start and pause by the other VTR. See pages 72 through 77.

■ Use of the EDIT mode

The EDIT mode activated by the EDIT ON/OFF button on the VTR enables recording and playback of higher quality pictures during editing. If the other VTR is equipped with this function, turn it on. However, note that even when using the EDIT mode during editing, the quality of the edited tape will have a certain extent of degradation in picture and sound. Avoid using the edited tape for multiple generations of editing.





Editing from another VTR

Using this VTR as a recording VTR and an 8 mm video camera recorder as a playback VTR.

■ Before you begin

- Make connections using the supplied video/audio connecting cable as illustrated.
- If the other VTR is a monaural type as shown in the illustration, connect the white plug to LINE IN 2 AUDIO L and leave the red plugs unconnected. This enables the sound to be separated into the right and left channels. If the other VTR is a stereo type, make connections with both the red and white plugs.
- Press INPUT SELECT on this VTR to indicate LINE L1, LINE L2 or LINE L3 to match the jack to which you have connected the other VTR.
- Activate the EDIT mode on both VTRs.
- Select the recording tape speed, SP or LP.

■ Operation

- 1 Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.
- 2 Play back on the playback VTR and record with this VTR.

Note
The → mark indicates the signal flow.

Editing onto Another VTR

Using this VTR as a playback VTR and another VTR as a recording VTR.

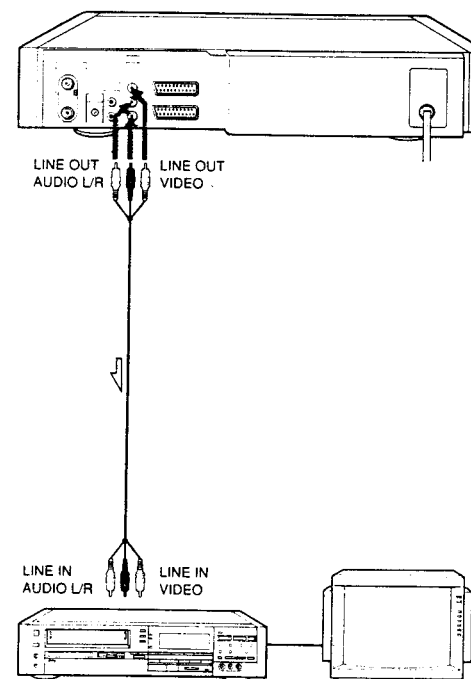
■ Before You Begin

- Make connections using the supplied video/audio connecting cable as illustrated. If the other VTR is a monaural type, make connections with the VMC-910MS/920MS video/audio connecting cable (not supplied).
- Press AUDIO MONITOR on the Commander to select the sound to be recorded.
- Press DATA SCREEN on the Commander to erase the data screen.
- Activate the EDIT mode on both VTRs.
- Select the line input on the other VTR.

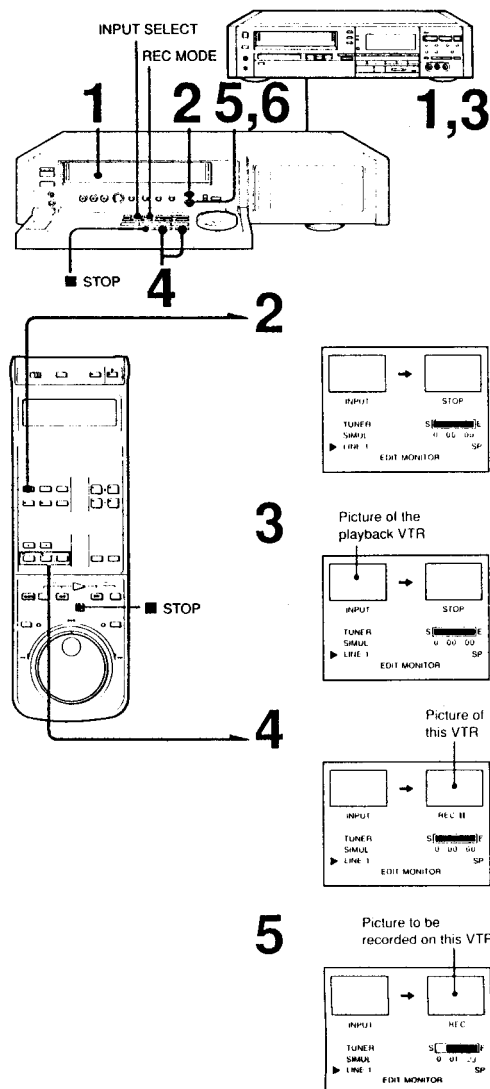
■ Operation

- 1 Insert a source tape into this VTR. Insert a tape for recording into the recording VTR.
- 2 Play back on this VTR and record with the recording VTR.

Note
Do not connect the same VTR to both the LINE IN and LINE OUT jacks of this VTR. This may cause hum noise.



Synchronized Editing -Operation



Synchronized Editing From Another VTR

Using this VTR as a recording VTR and another VTR as a playback VTR.

■ Before You Begin

- Press INPUT SELECT to indicate LINE L1, LINE L2 or LINE L3 to match the jacks to which you have connected the other VTR.
- Press REC MODE to select the recording tape speed, SP or LP.

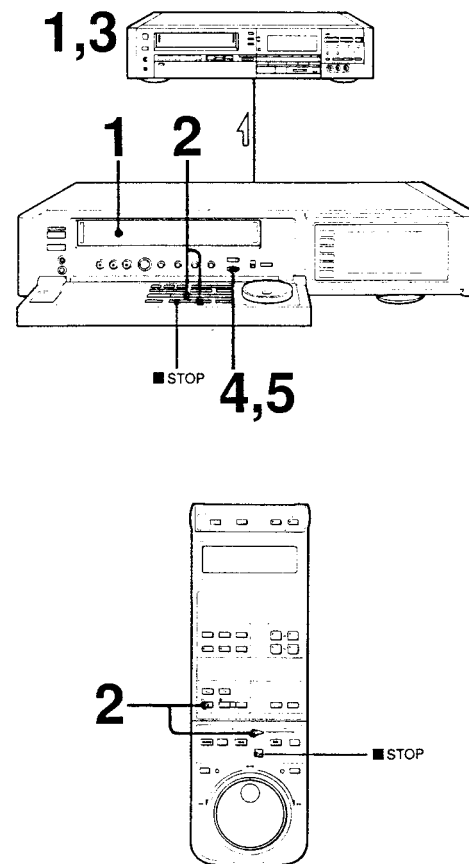
■ Operation

- 1 Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.
- 2 Press EDIT MONITOR.
- 3 On the playback VTR, locate the point where you wish to start editing and set the VTR to the playback pause mode. If the VTR is equipped with the EDIT switch, set it to ON.
- 4 On this VTR, locate the recording starting point and set the VTR to the recording pause mode.
- 5 Press SYNCHRO EDIT. Playback and recording will start on each VTR. The EDIT mode will be activated automatically.
- 6 To stop editing, press SYNCHRO EDIT.
- 7 To edit more scenes, repeat steps 3, 5 and 6.

After editing, press ■ STOP on both VTRs.

Notes

- For considering of the rise time of the player, the recording will start approximately 1 second after the playback pause mode is released.
- When this VTR is used as the recording VTR and the SYNCHRO EDIT indicator lights, if the variable speed picture, such as the slow speed or double speed picture is played back on the playback VTR, the variable speed picture will be recorded.



Synchronized Editing onto Another VTR

Using this VTR as a playback VTR and another VTR as a recording VTR.

■ Operation

- 1 Insert a source tape into this VTR. Insert a tape for recording into the recording VTR.
- 2 On this VTR, locate the point where you wish to start editing and set the VTR to the playback pause mode.
- 3 On the recording VTR, locate the recording starting point and set the VTR to the recording pause mode.
- 4 Press SYNCHRO EDIT. After a tape is rewound a little, playback will start on this VTR. The recording will start at the assigned recording starting point. The EDIT mode will be activated automatically.
- 5 To stop editing, press SYNCHRO EDIT.
- 6 To edit more scenes, repeat steps 2, 4 and 5.

After editing, press ■ STOP on both VTRs.

When using the synchronized editing function of another Sony VTR

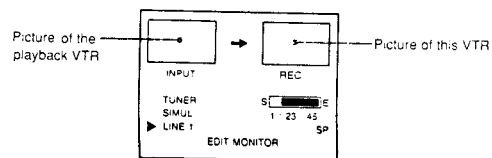
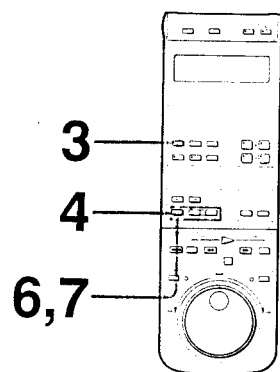
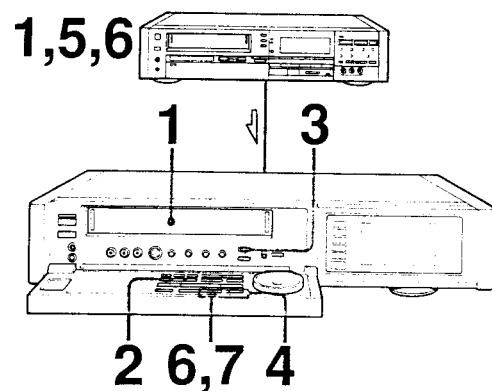
When the VTRs are connected via the CONTROL S jacks, set COMMAND MODE of this VTR to VTR 1 or VTR 2. With VTR 3 setting, this VTR may not be operated.

Note

Do not operate the buttons on the VTRs or Commander during editing. Doing so may cause a malfunction.

Manual Editing

-Editing with a VTR Equipped
with a Sony Control Terminal



Using this VTR as a recording VTR and another VTR as a playback VTR.

For connections, see page 72 or 74. The CONTROL L or CONTROL S connection is not necessary.

■ Before You Begin

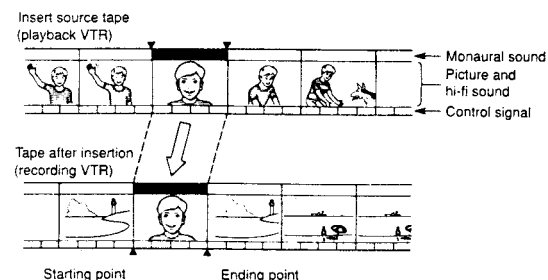
- Press INPUT SELECT to indicate LINE L1, LINE L2 or LINE L3 to match the jacks to which you have connected the other VTR.
- Press REC MODE to select the recording tape speed, SP or LP.

■ Operation

- 1 Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.
- 2 Press EDIT to light the EDIT indicator in the display window.
- 3 Press EDIT MONITOR.
- 4 On this VTR, locate the recording starting point and set the VTR to the recording pause mode.
- 5 On the playback VTR, locate the point where you wish to start editing and set the VTR to the playback pause mode. If the VTR is equipped with the EDIT switch, set it to ON.
- 6 Press II PAUSE of both VTRs simultaneously to start editing.
- 7 To stop editing, press II PAUSE of this VTR.
- 8 To edit more scenes, repeat steps 5 to 7.

After editing, press ■ STOP on both VTRs

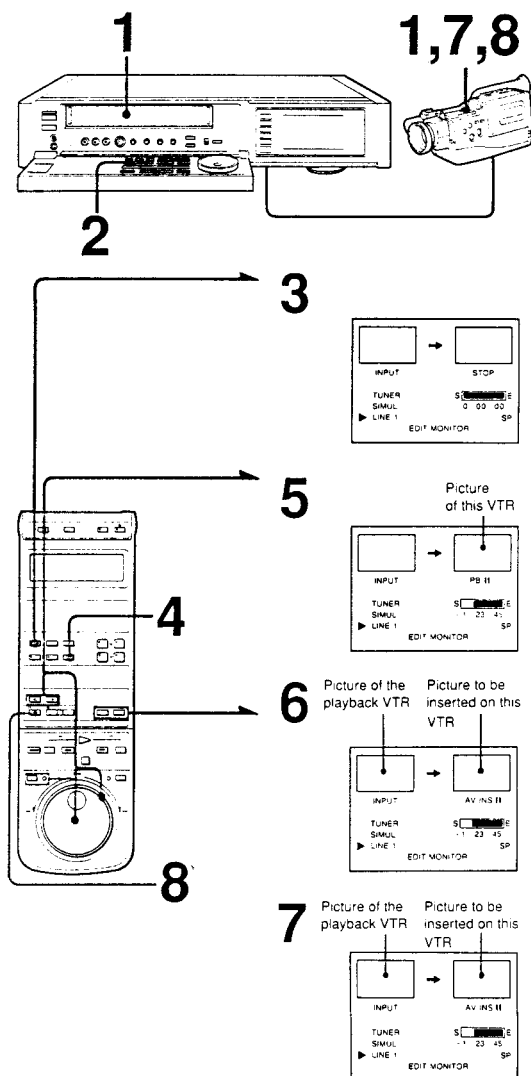
Insert Editing



You can easily insert a new picture and/or sound onto a pre-recorded tape. This editing is useful to replace an unnecessary scene (sound) with another scene (sound).

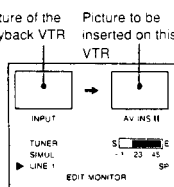
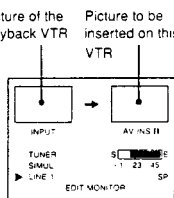
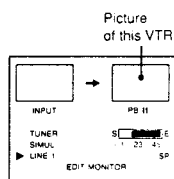
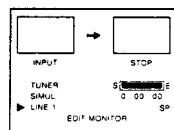
■ Before You Begin

- For connection, see page 72 or 74. (The CONTROL L or CONTROL S connection is not needed.)
- Select the insert source from the equipment connected to EURO-AV (LINE 1), LINE IN 2 and EURO-AV (LINE 3).



■ Operation

- 1 Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.
- 2 Press EDIT ON/OFF.
If the playback VTR is equipped with the EDIT switch, set it to ON.
- 3 Press EDIT MONITOR.
- 4 On this VTR, locate the ending point and press COUNTER RESET.
The counter will show "0H00M00S" and the ending point will be memorized.
- 5 On this VTR, locate the starting point and set the VTR to the playback pause mode.
JOG SHUTTLE or SHUTTLE EDIT are useful for this operation.
- 6 Press VIDEO AUDIO INSERT.
For audio insert, press AUDIO.
For video insert, press VIDEO.
For audio and video insert, press AUDIO and then VIDEO or vice versa.
The indicator corresponding to the button pressed will light.
- 7 On the playback VTR, locate the starting point where you want to start the insertion and set the VTR to the playback pause mode.
- 8 Press II PAUSE of both VTRs to start the insertion.
At the ending point (0H00M00S), the insertion will stop automatically.



- To stop the insertion temporarily
Press II PAUSE
- To stop on-going insertion
Press ■ STOP
- To turn off the EDIT MONITOR display
Press EDIT MONITOR.

When the VIDEO INSERT button is pressed
The picture and the sound on the hi-fi audio track will be inserted. (The sound on the normal audio track will be retained.)

When the AUDIO INSERT button is pressed
The sound on the normal audio track will be inserted. (The picture and the sound on the hi-fi audio track will be retained.)

When the VIDEO and AUDIO INSERT buttons are pressed
The picture, sound on the hi-fi audio track and the sound on the normal audio track will be inserted.

Notes

- The insertion cannot be made onto the unrecorded portion of a tape.
- After the insertion, the pre-recorded picture and/or sound will be erased.

■ When the sound from the microphone is inserted
When the microphone is connected to the MIC jack, the sound from the microphone is automatically selected and it is recorded on the normal audio track. When VIDEO INSERT is pressed, the sound from the microphone cannot be recorded.

Note

The MIC jack of this VTR is adaptable with the use of a monaural mini plug. If you connect a microphone with a stereo mini plug, use a plug adaptor such as the PC-236MS or the PC-236HMS.

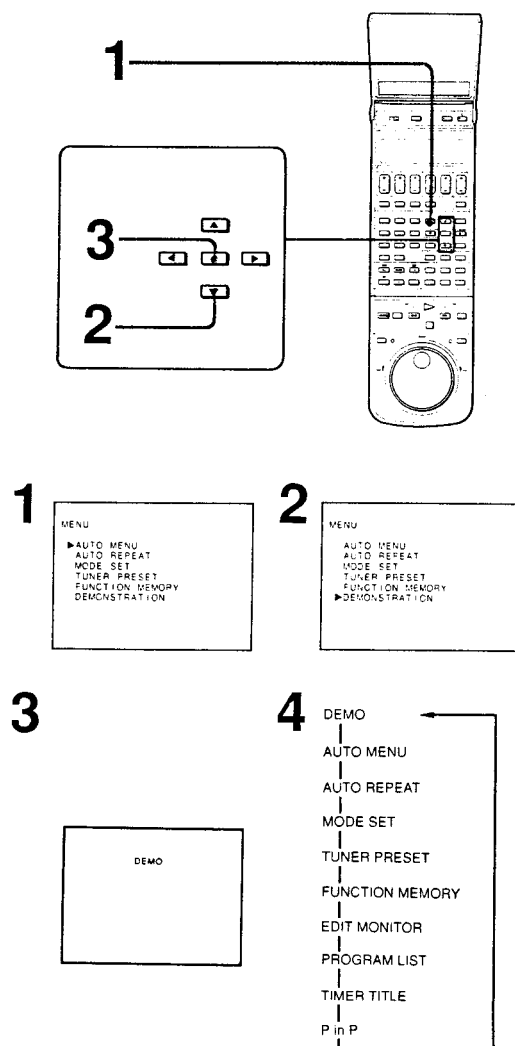
The Menu System

Demonstration Menu

As you have noticed, many of the operations on this VTR are guided by the menu system. All of the menus are explained in sections where and when needed. However, to get an overview of the menu system, check the DEMONSTRATION menu which will give you a quick review of the MENU system.

■ Operation

- 1 Press MENU.
The main MENU appears.
- 2 Move cursor with ▲ or ▼ to DEMONSTRATION.
- 3 Press EXE.
- 4 The screen will change automatically as shown in the illustration.
The DEMONSTRATION menu can be stopped at the desired screen by pressing EXE. Press EXE again to resume the DEMONSTRATION menu sequence. Press any button except for EXE to get out of the DEMONSTRATION mode.



To Dim Out the Display Window

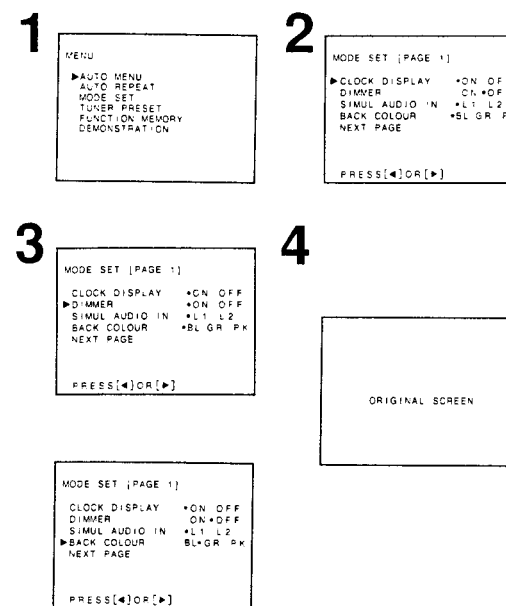
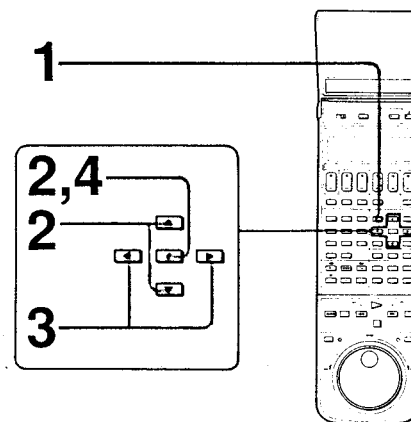
The indications in the display window can be dimmed out when the VTR is in the standby mode.

- 1 Press MENU.
The main MENU appears.
- 2 Move cursor with ▲ or ▼ to MODE SET and press EXE.
If the MODE SET [PAGE 2] menu appears, move cursor with ▲ or ▼ to PREVIOUS PAGE and press EXE.
- 3 Move cursor to DIMMER and select ON with ◀ to dim the indication.
- 4 Press EXE to store the setting and return to the original screen.

To Select the Background Colour on the Screen

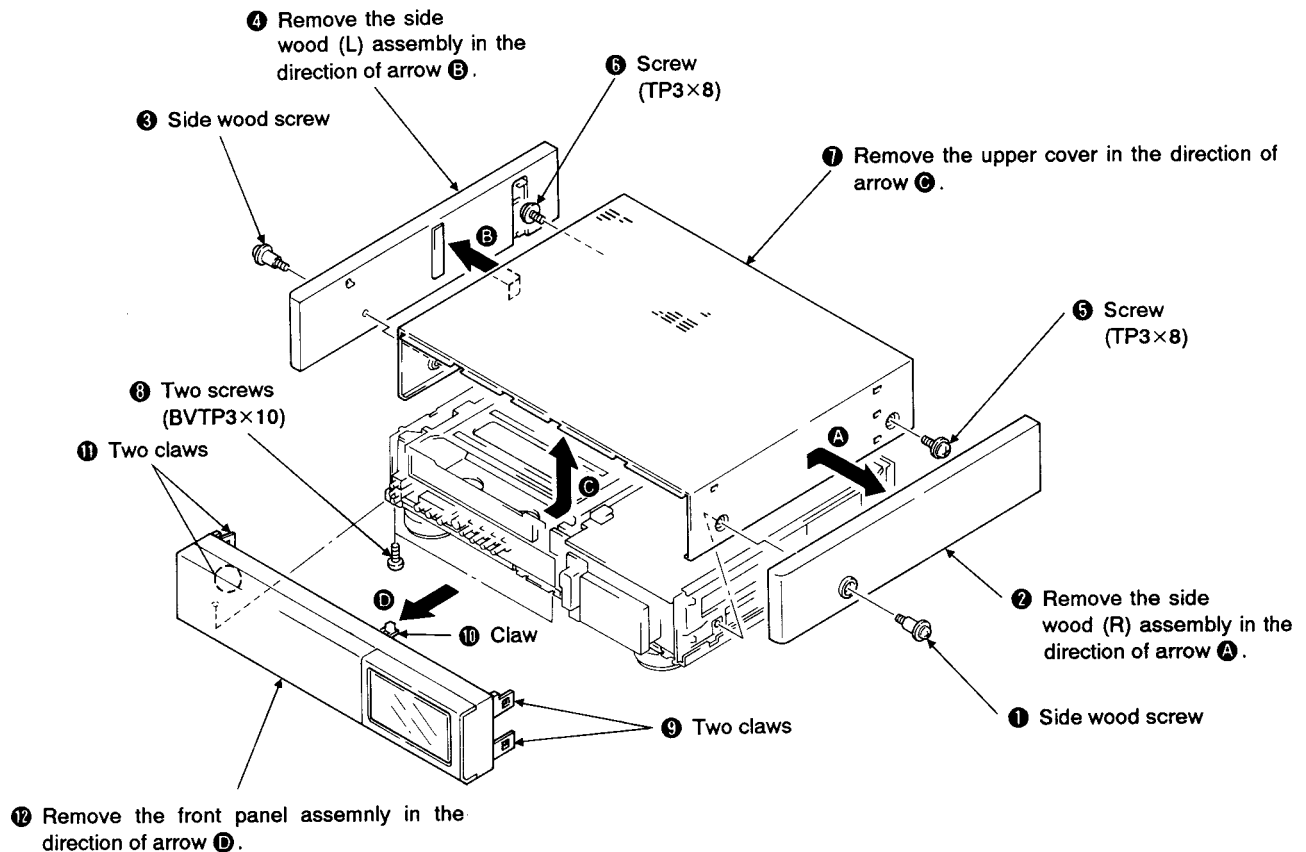
You can change the background colour on the screen when no picture is displayed or the MENU display is shown on the screen.

- 1 Press MENU.
The main MENU appears.
- 2 Move cursor with ▲ or ▼ to MODE SET and press EXE.
If the MODE SET [PAGE 2] menu appears, move cursor to PREVIOUS PAGE and press EXE.
- 3 Move cursor to BACK COLOUR and select the desired colour with ◀ or ▶.
BL...blue
GR...green
PK...pink
- 4 Press EXE to store the setting and return to the original screen.

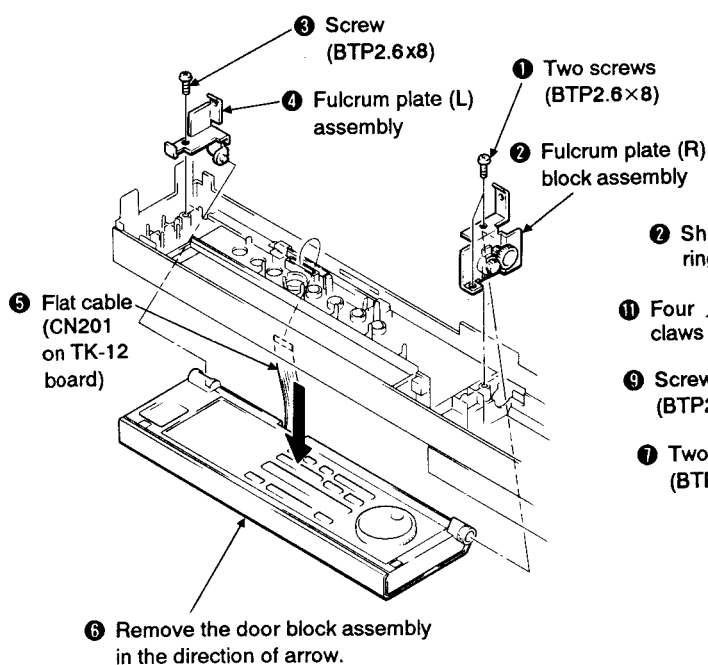


SECTION 2 DISASSEMBLY

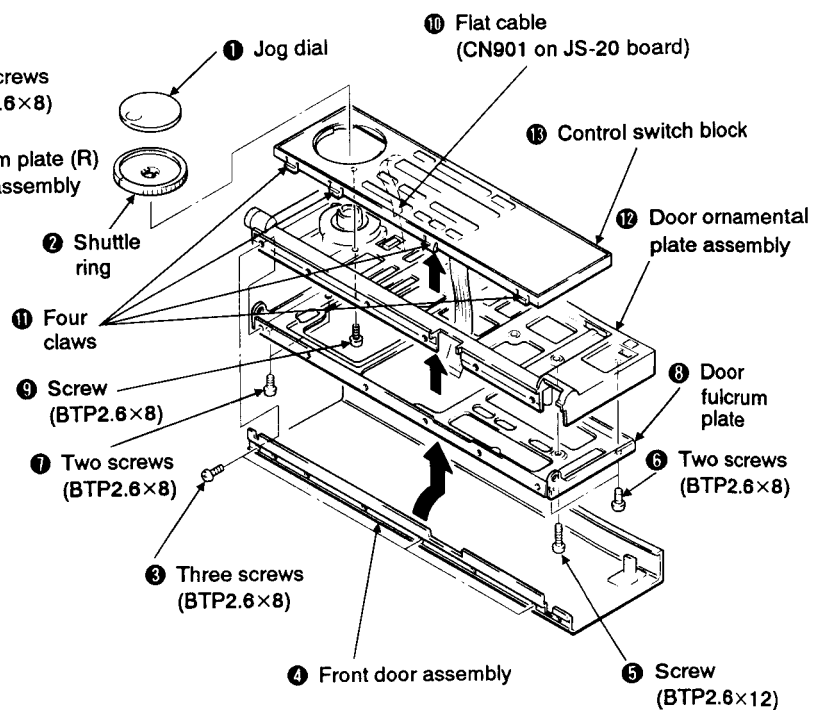
2-1. REMOVAL OF FRONT PANEL AND CABINET ASSEMBLIES



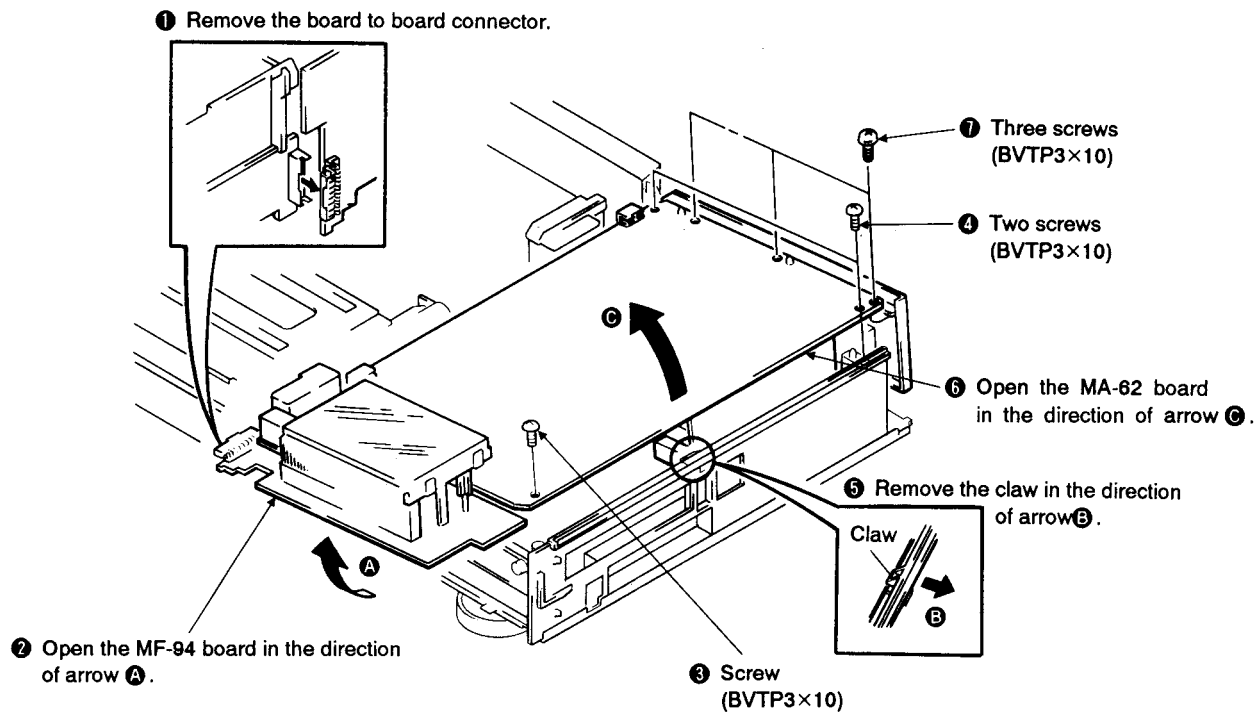
2-2. REMOVAL OF DOOR BLOCK ASSEMBLY



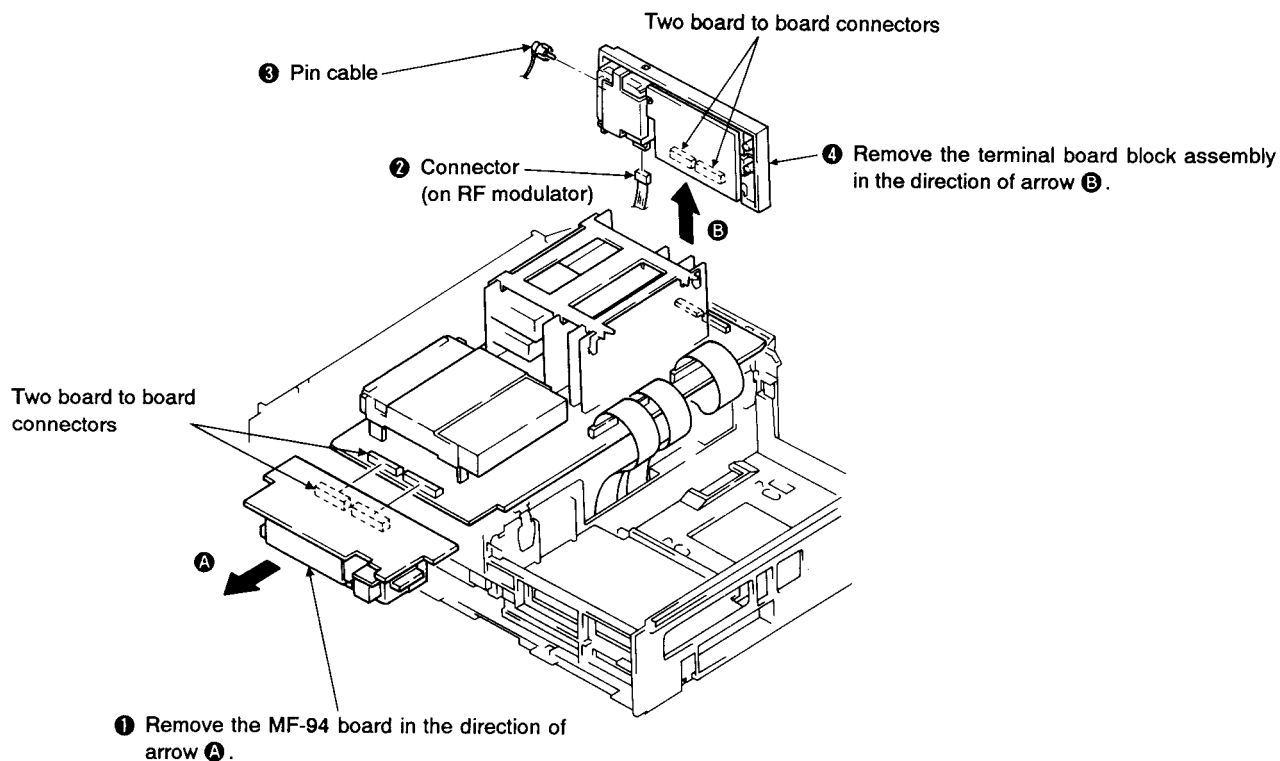
2-3. REMOVAL OF CONTROL SWITCH BLOCK



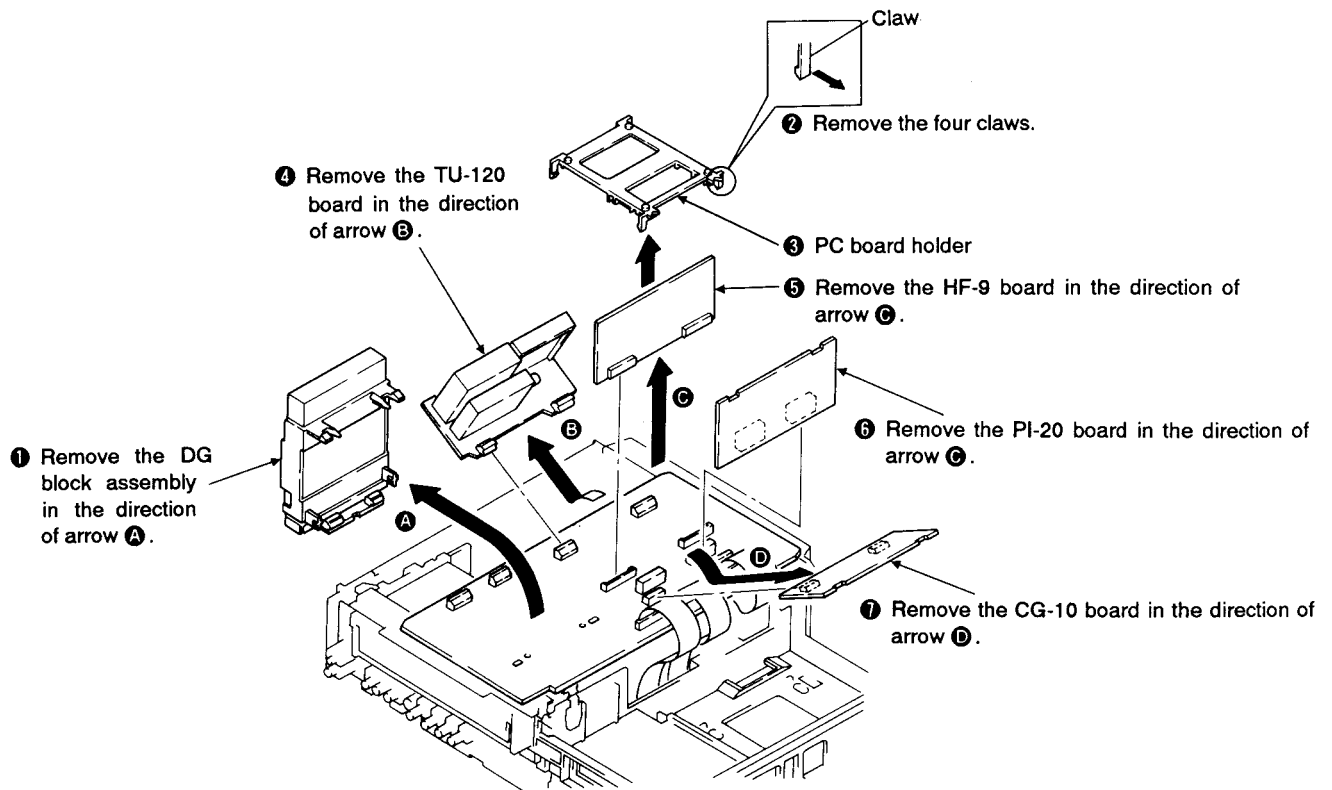
2-4. OPENING OF MA-62 BOARD



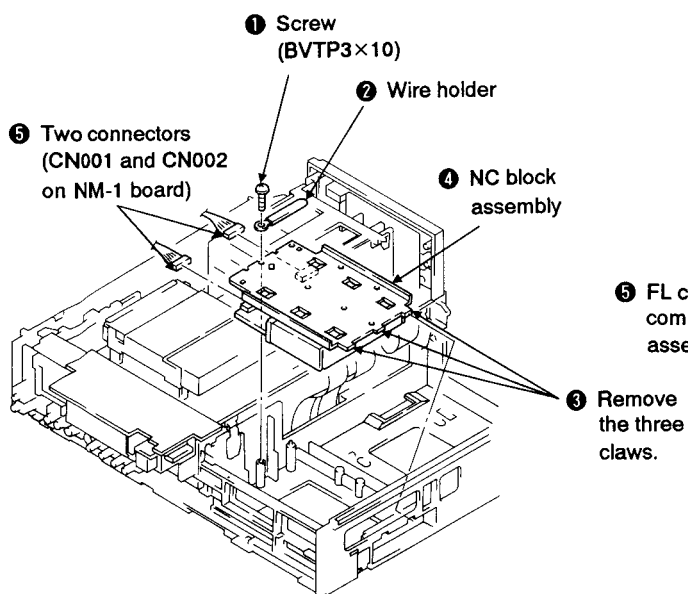
2-5. REMOVAL OF MF-94 BOARD AND TERMINAL BOARD BLOCK ASSEMBLY



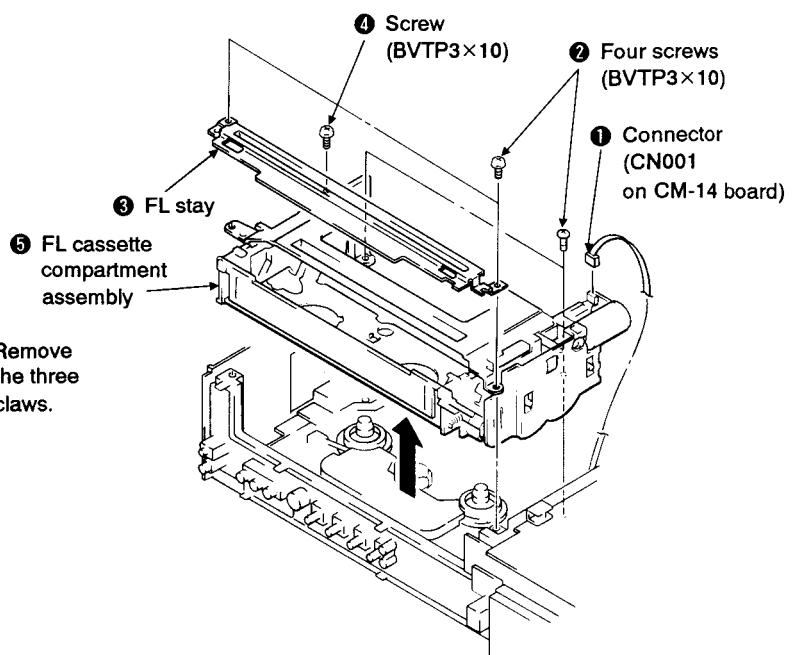
2-6. REMOVAL OF TU-120, HF-9, PI-20, CG-10 BOARDS AND DG BLOCK ASSEMBLY



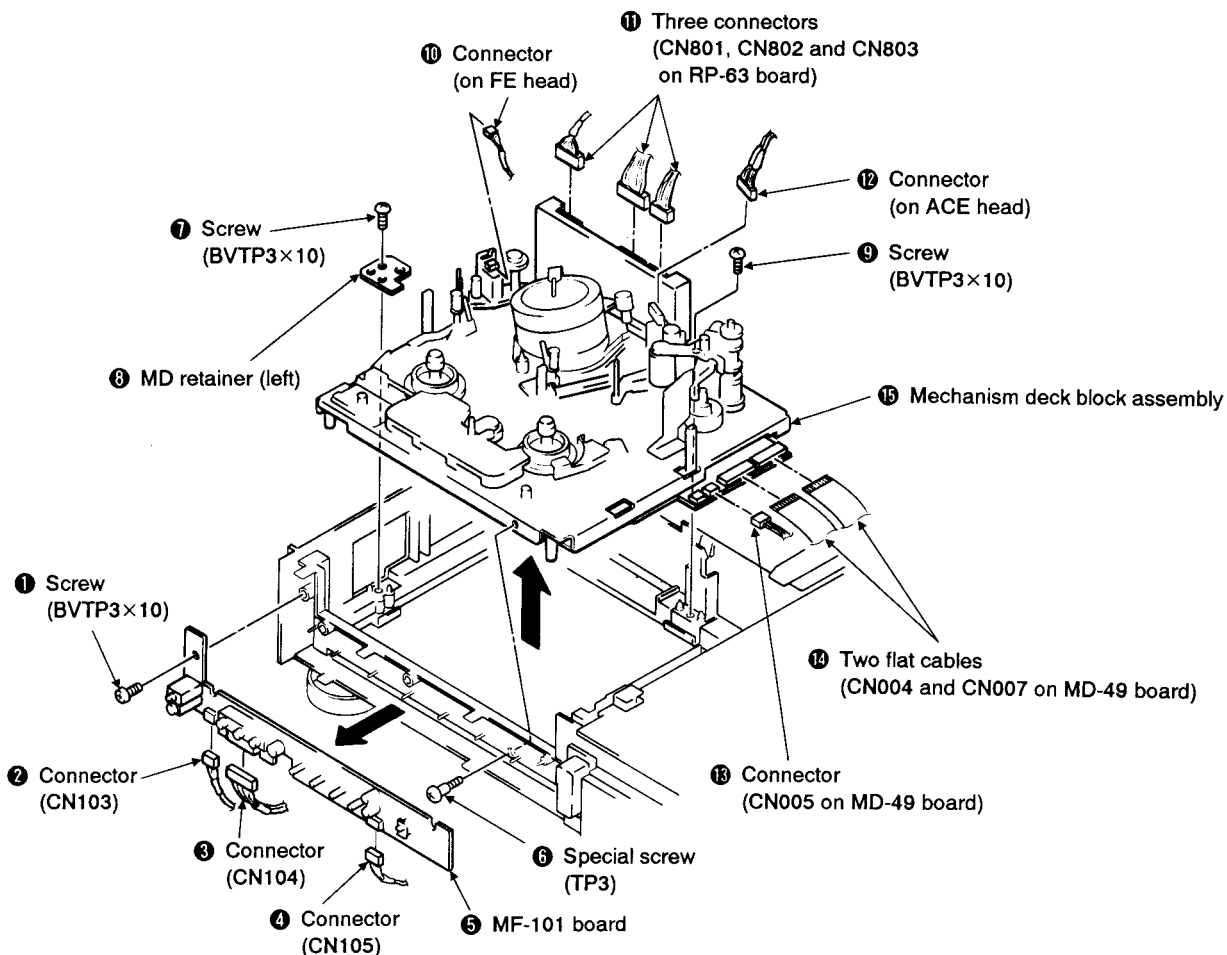
2-7. REMOVAL OF NC BLOCK ASSEMBLY (SLV-777UB/NC ONLY)



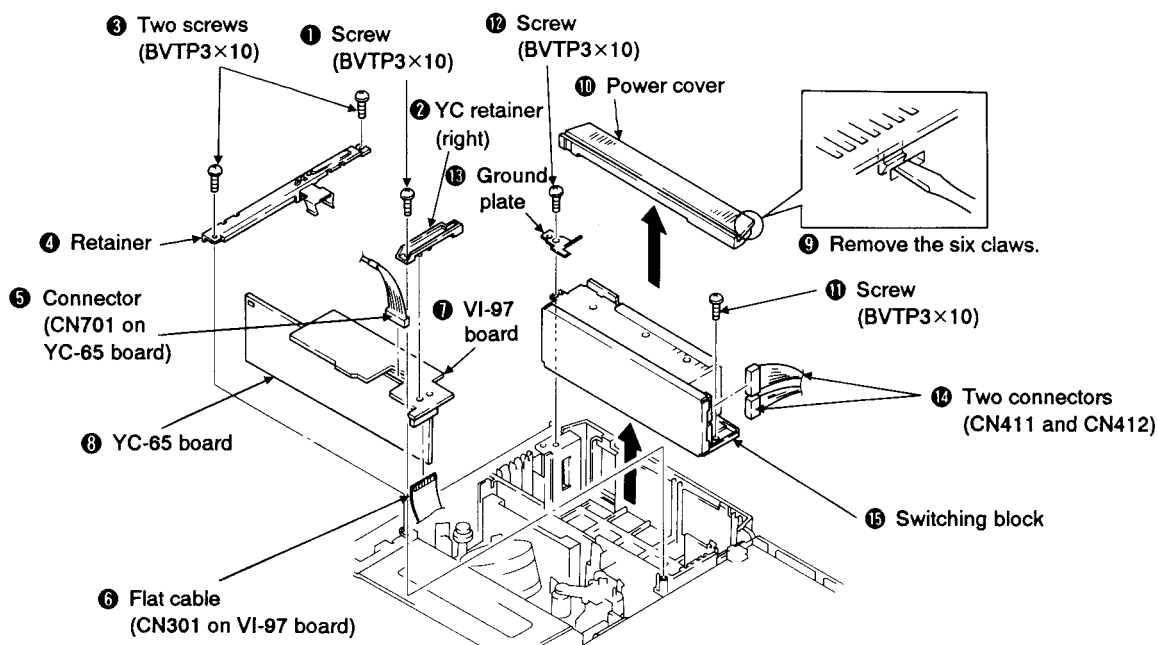
2-8. REMOVAL OF FL CASSETTE COMPARTMENT ASSEMBLY



2-9. REMOVAL OF MF-101 BOARD AND MECHANISM DECK BLOCK ASSEMBLY

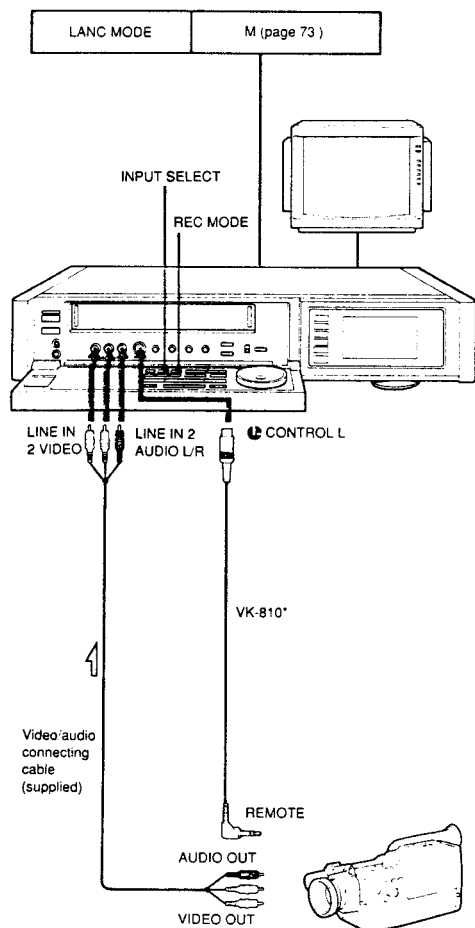


2-10. REMOVAL OF VI-97, YC-65 BOARDS AND SWITCHING BLOCK



Synchronized Editing

-Editing with a VTR Equipped with a Sony Control Terminal



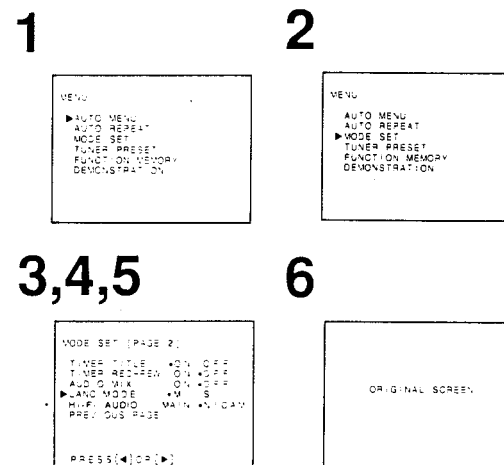
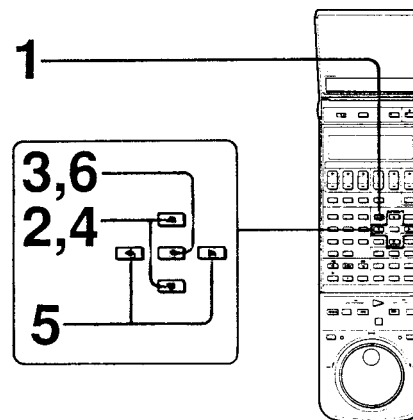
Connecting a VTR Equipped with a CONTROL L Connector

Using this VTR as a recording VTR and another VTR as a playback VTR.

- When the REMOTE connector of the other VTR is a stereo mini-plug, use the VK-810 connecting cable (not supplied). If it is a 5-pin DIN connector, use the VK-800 connecting cable (not supplied) instead of VK-810.
- If the other VTR is monaural, connect the white plug to LINE IN 2 AUDIO L and leave the red plugs unconnected. This enables the sound to be separated into the right and left channels. Connect nothing to LINE IN 2 AUDIO R.

Notes

- The cable with an* (asterisk) is not supplied.
- The . mark indicates the signal flow.



To set LANC MODE

When the other VTR is connected via the CONTROL L connector, you may select the LANC MODE which determines if this VTR controls the other VTR via the CONTROL L connector or it is controlled by the other VTR. This is LANC MODE. To perform synchronized editing using the SYNCHRO EDIT button on this VTR, select LANC MODE M as follows:

- Press MENU. The main MENU appears.
- Move cursor with down or up arrow to MODE SET.
- Press EXE. If the MODE SET [PAGE 1] menu appears, move cursor with up or down arrow to NEXT PAGE and press EXE. The MODE SET [PAGE 2] menu appears.
- Move cursor with down or up arrow to LANC MODE.
- Move the dot with left or right arrow to M when you control the other VTR through this VTR, and to S when you control this VTR through the other VTR.
- Press EXE to store the setting and return to the original screen.

Operation

See "Synchronized Editing from Another VTR" on page 76.

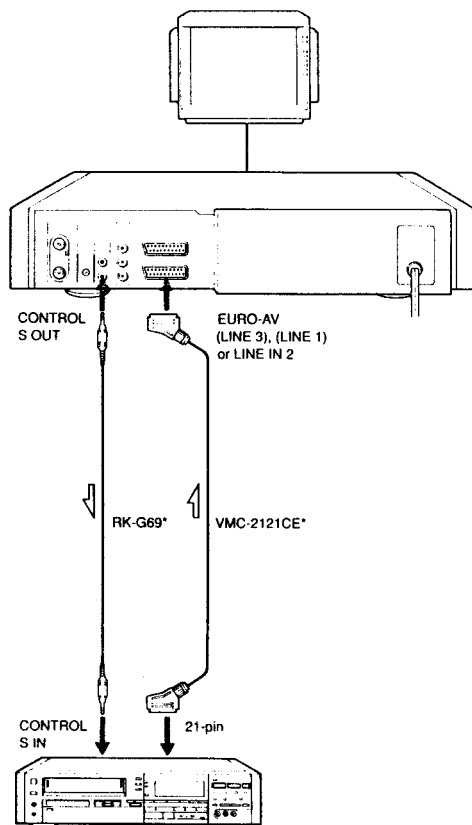
Using a Sony editing controller RM-E300

You can perform automatic assemble editing of up to 8 programmes. Select the LANC MODE S in the MODE SET [PAGE 2] menu.

About the LANC

LANC stands for Local Application Control Bus System. The LANC connector is used for controlling the tape transport of video equipment and peripherals connected to it. This connector has the same function as the connectors indicated as CONTROL L or REMOTE.

*Hi-Fi AUDIO for SLV-777UB/777NC only



Connecting a VTR Equipped with a CONTROL S Input Jack

Using this VTR as a recording VTR and another VTR as a playback VTR.

- When connecting the other VTR to LINE IN 2 on the front, use the supplied video/audio connecting cable. If the other VTR is monaural, connect to LINE IN 2 AUDIO L via the white plugs. This enables the sound to be separated into the right and left channels. Leave the red plugs unconnected.

Notes

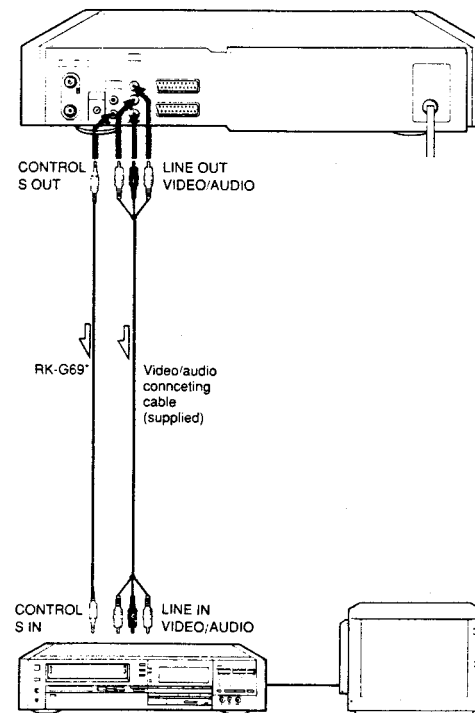
- The cables with an * (asterisk) are not supplied.
- The → mark indicates the signal flow.

■ Operation

See "Synchronized Editing from Another VTR" on page 76.

When a new scene is inserted onto the recorded tape

See "Insert Editing" on page 79.
The edited picture will be distorted at the editing end point.



Connecting a VTR Equipped with a CONTROL S Input Jack

Using this VTR as a playback VTR and another VTR as a recording VTR.

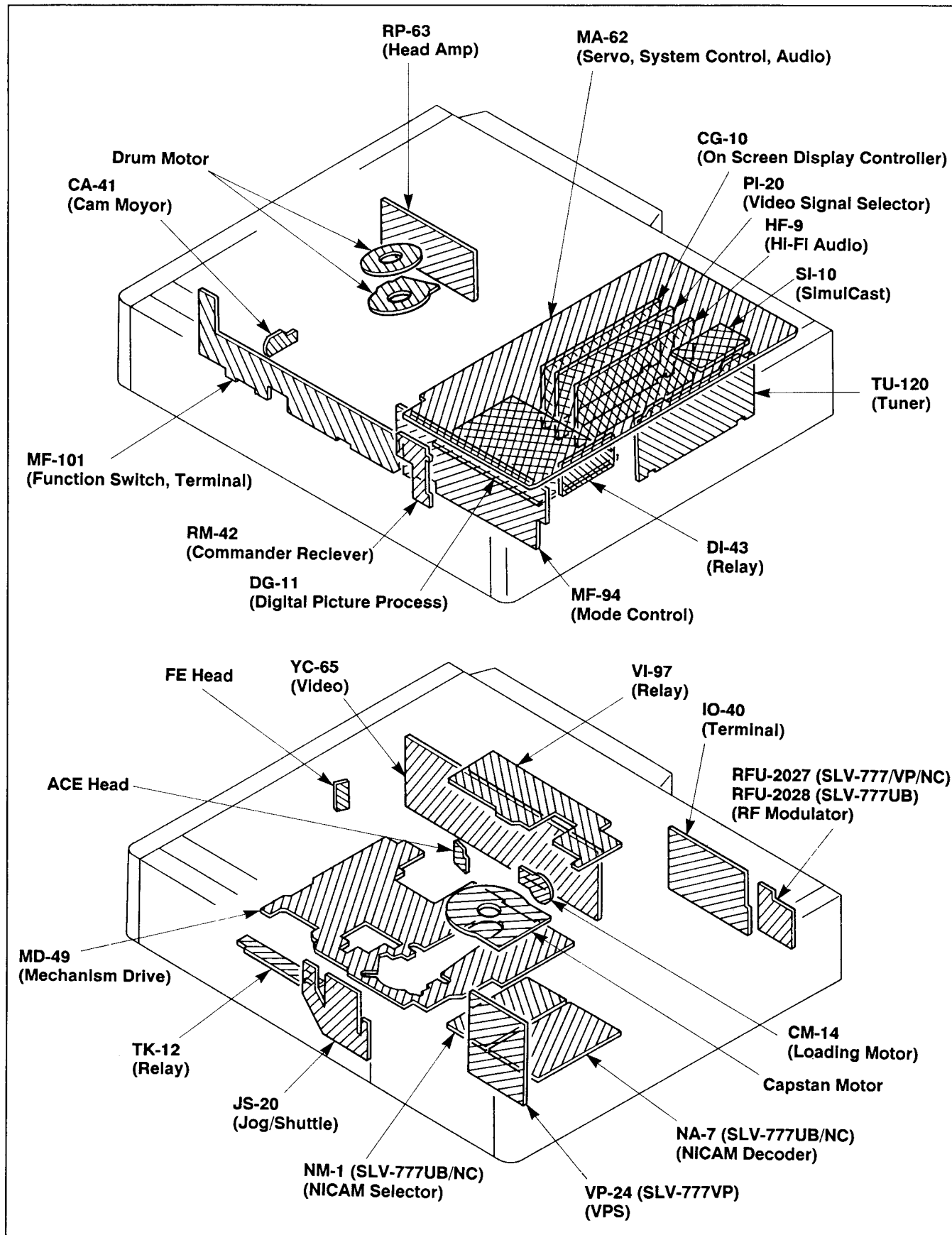
- If the other VTR is monaural, connect the VTR using the VMC-910MS 920MS video/audio connecting cable (not supplied).
- You can also connect the other VTR to EURO-AV (LINE 1) using the VMC-2121CE cable (not supplied).

■ Operation

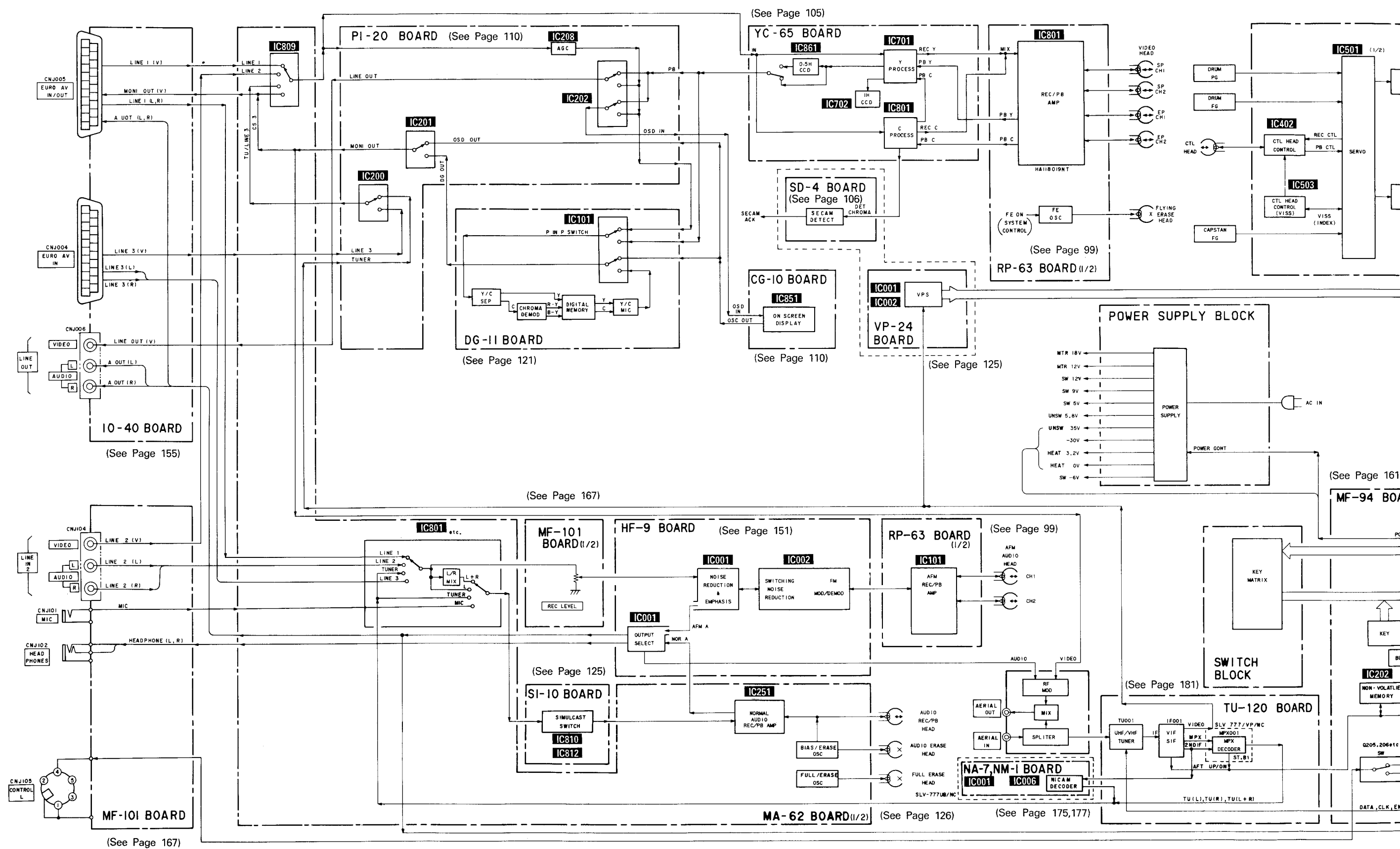
See "Synchronized Editing onto Another VTR" on page 77.

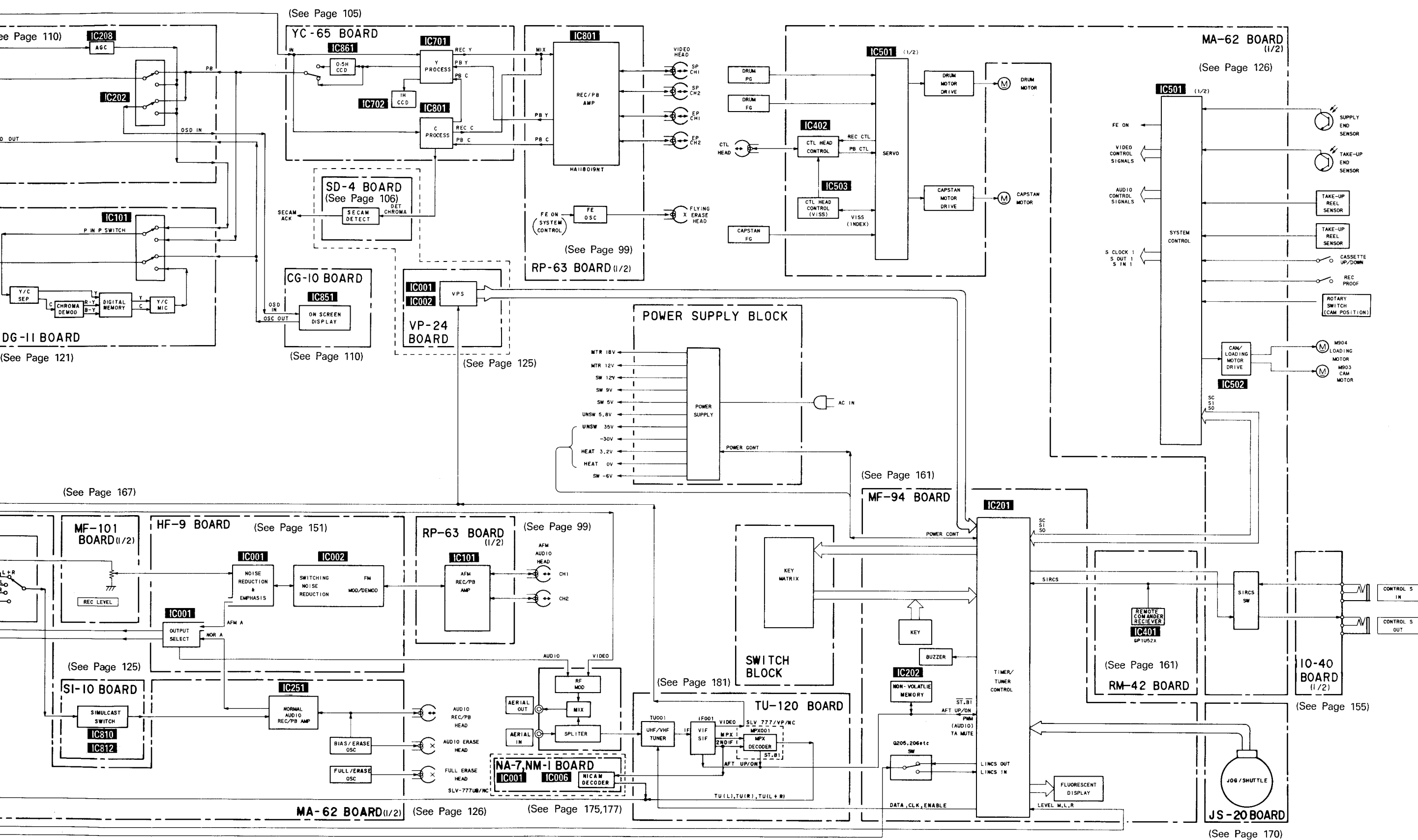
SECTION 3 DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION

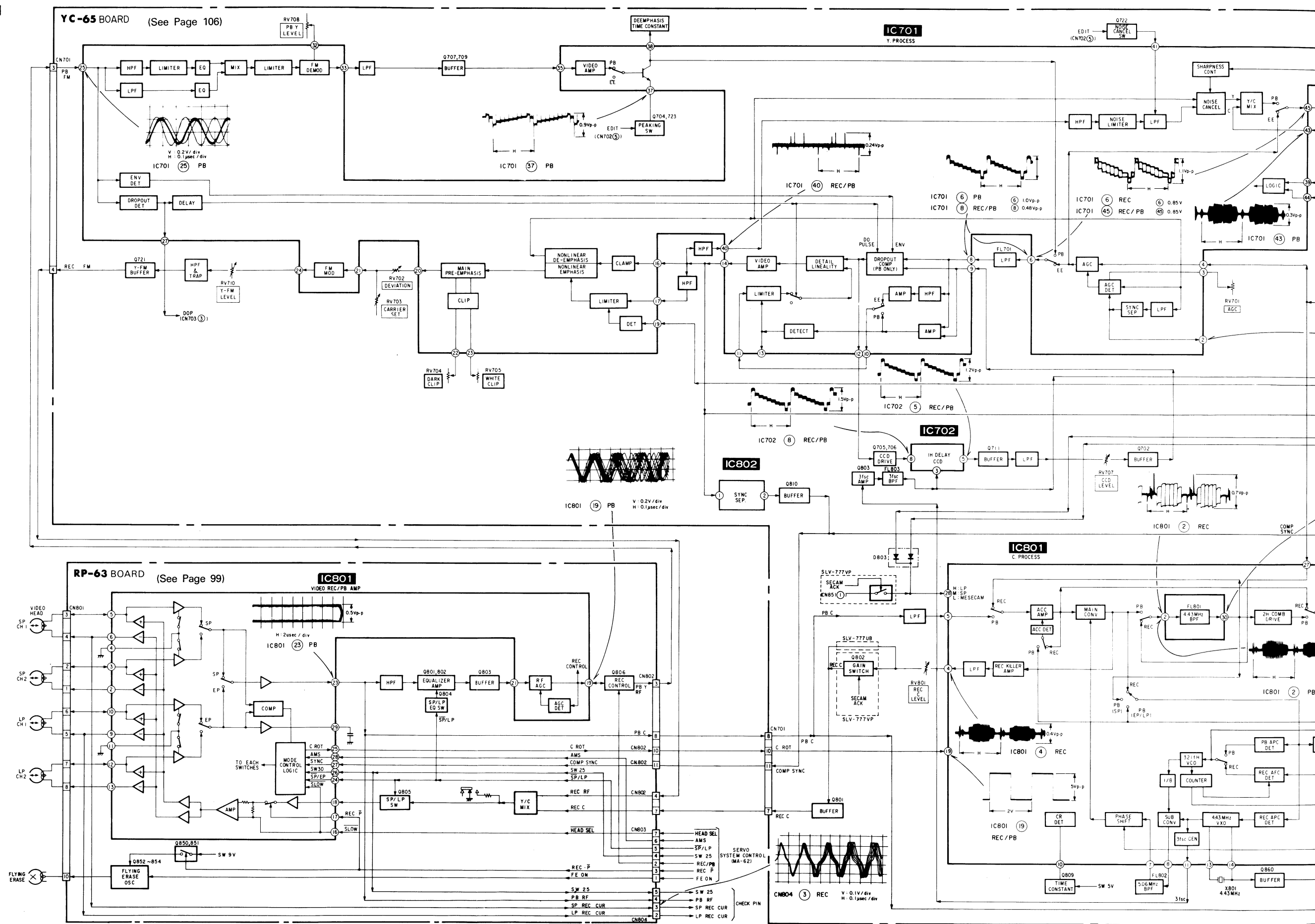


3-2. OVERALL BLOCK DIAGRAM

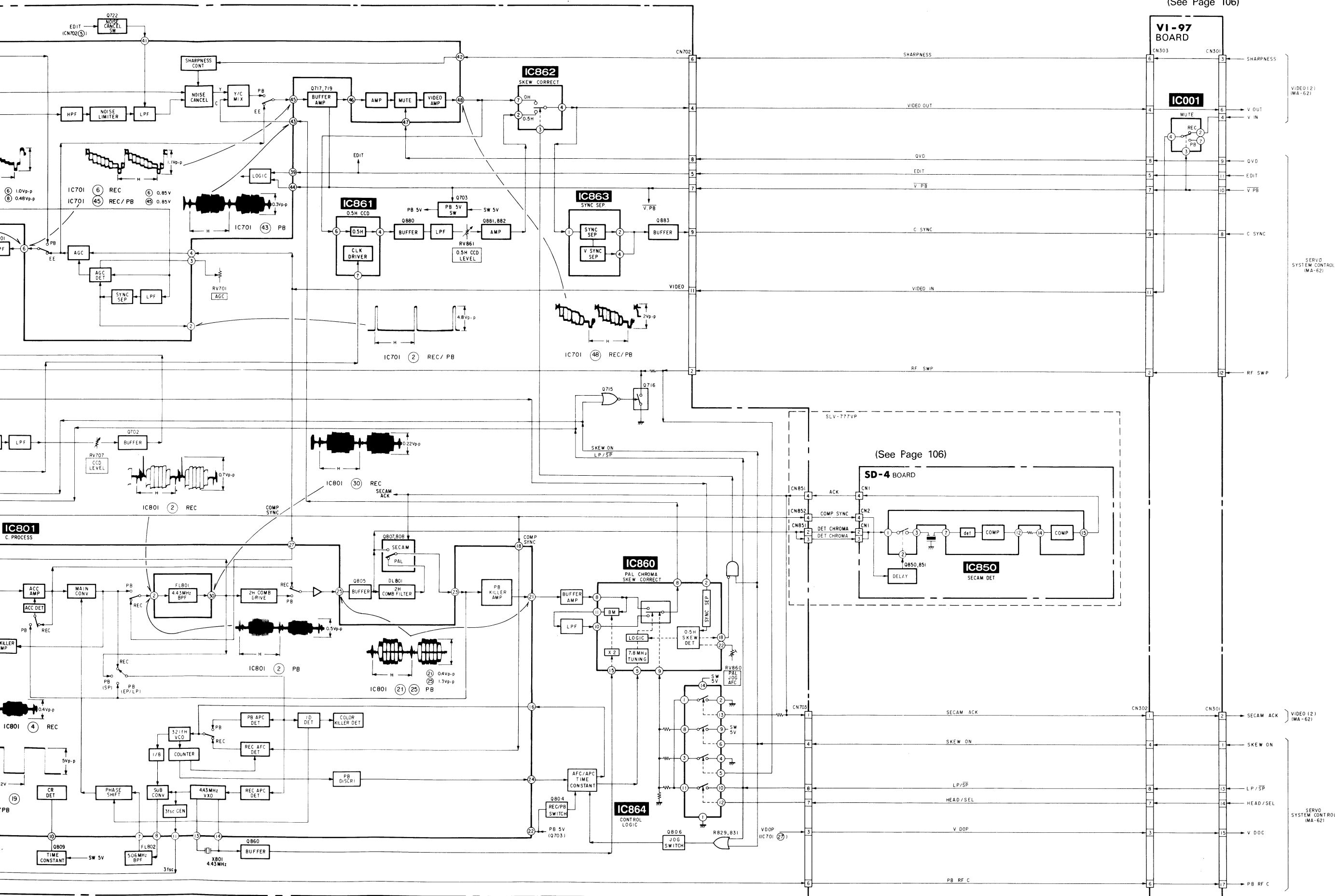




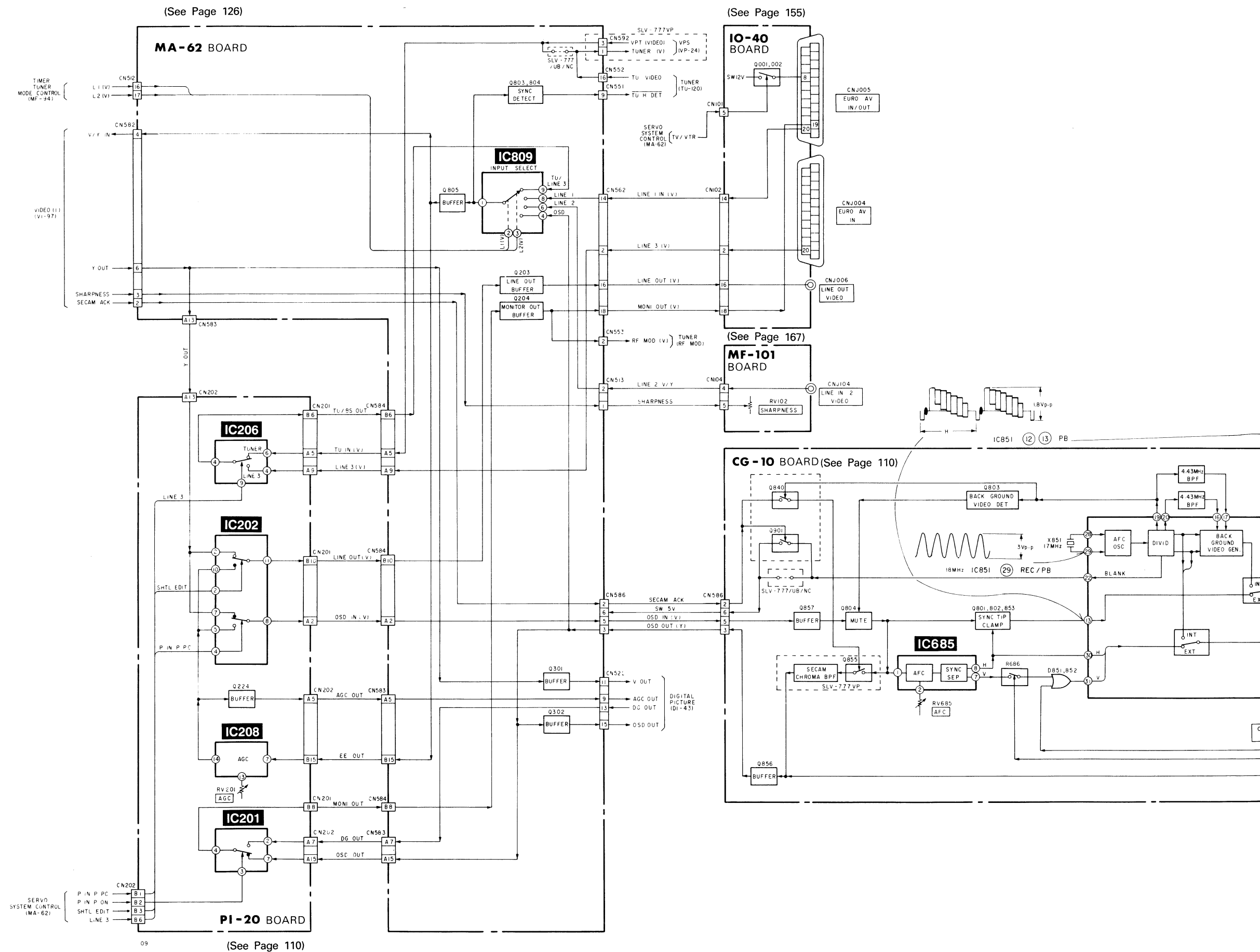
3-3. VIDEO (1) BLOCK DIAGRAM

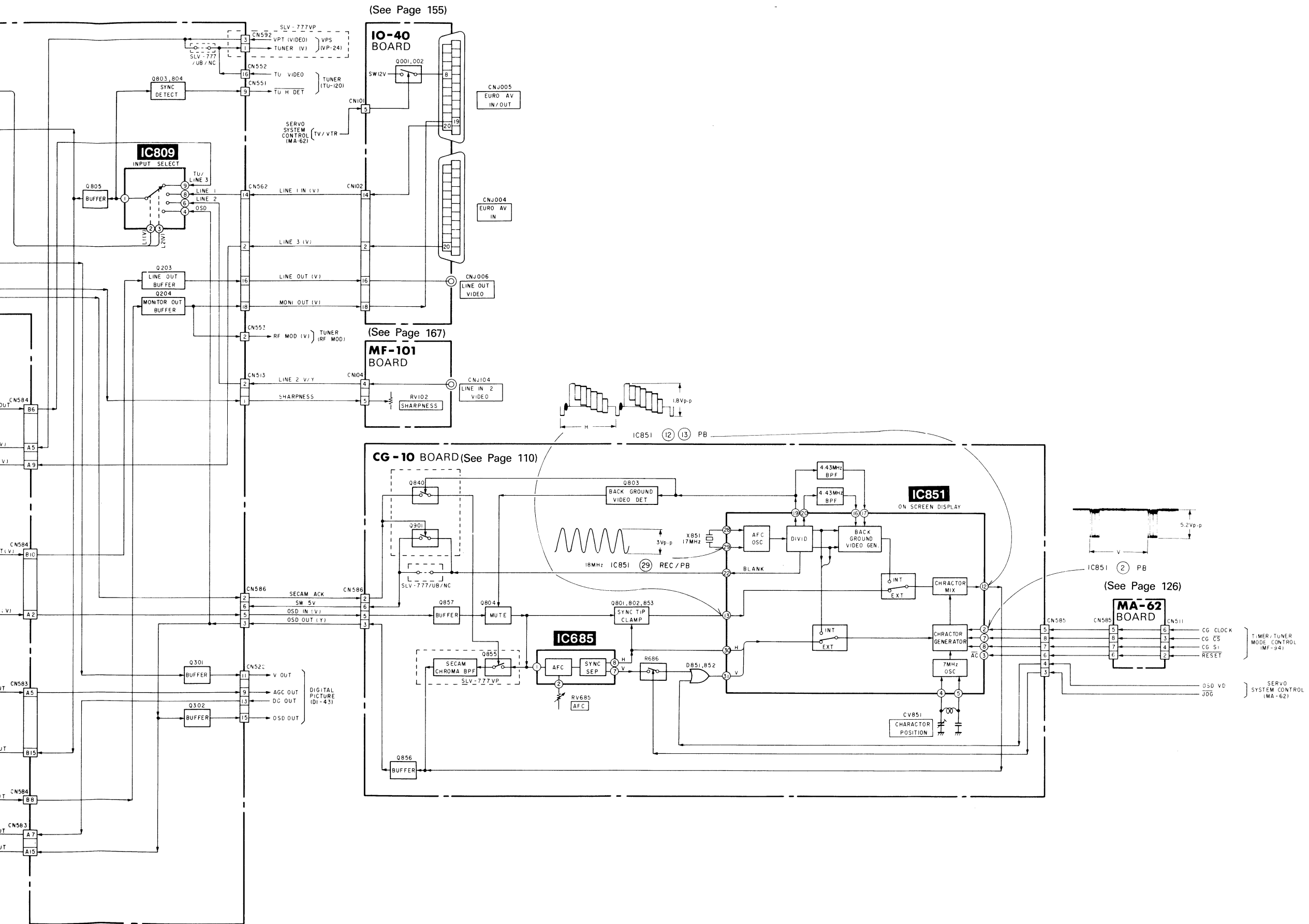


(See Page 106)



3-4. VIDEO (2) BLOCK DIAGRAM



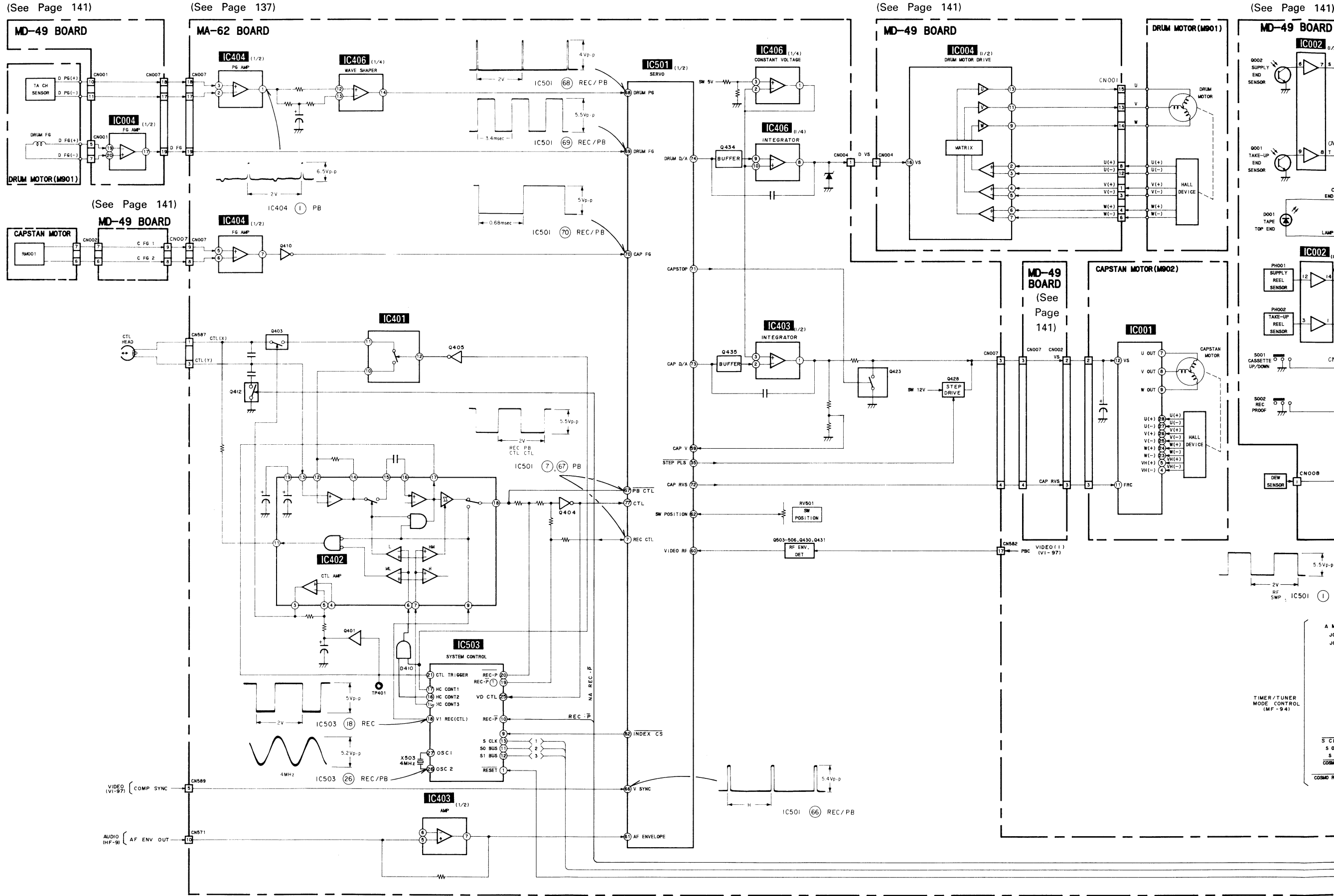


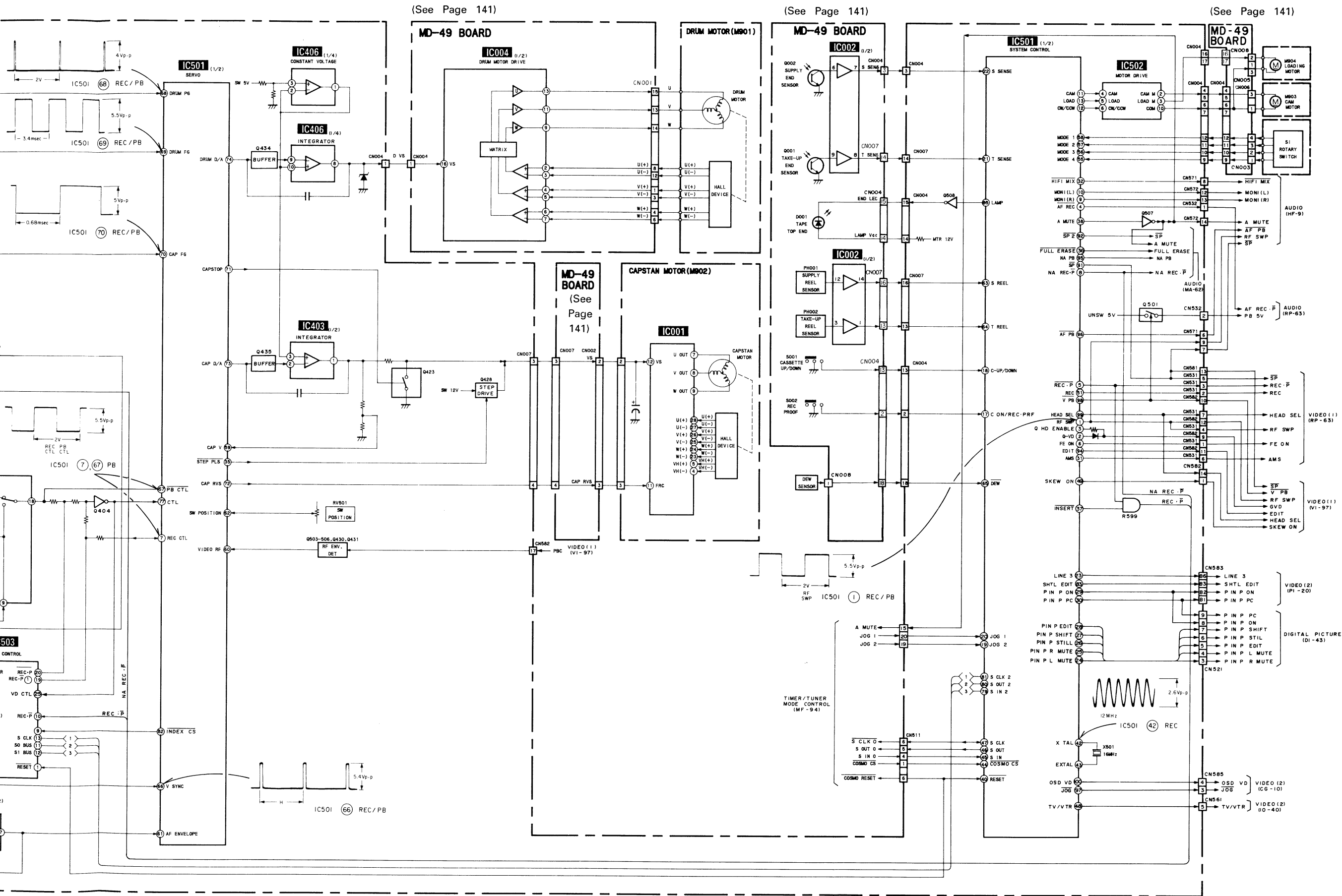
62

- 63 -



3-6. SERVO, SYSTEM CONTROL BLOCK DIAGRAM





3-7. SYSTEM CONTROL — VIDEO BLOCK INTERFACE

Signal	Mode		STOP/ FF/REW	TAPE LOADING	TAPE UNLOADING	PB	PB• PAUSE	SLOW	×2	CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT• PAUSE
	I/O	Pin No.													
V•PB	O	Pin ⑨ of IC501 on MA-62 board	H	H	H	L	L	L	L	L	L	H	H	H*12	H*12
HEAD SEL	O	Pin ⑨ of IC501 on MA-62 board	L	L	L	L	H	*1	H	L	L	H	L	H*12	L
RF SW P (SW25)	O	Pin ① of IC501 on MA-62 board	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2
Q VD/V MUTE	O	Pin ② of IC501 on MA-62 board	L	L	L	*3	*4	*4	*4	*4	*4	L	L	L	L*11
FE ON	O	Pin ⑥ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	*5	L	H*12	L
EDIT	O	Pin ④ of IC501 on MA-62 board	L	L	L	*6	*6	*6	*6	*6	*6	*6	L	*6	L
AMS	O	Pin ③ of IC501 on MA-62 board	L	L	L	L	L	L	L	*7	*7	L	L	L	L
SP	O	Pin ⑩ of IC501 on MA-62 board	*8	*8	*8	*9	*9	*9	*9	*9	*9	*8	*8	*9	*9
SP•2	O	Pin ⑫ of IC501 on MA-62 board	*8	*8	*8	*9	*9	*9	*9	*9	*9	*8	*8	*9	*9
LP•HEAD	O	Pin ⑬ of IC501 on MA-62 board	*9	*9	*9	*9	L	L	L	L	L	*9	*9	*9	*9
REC•P	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	H	L	H	L
REC	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	H	H	H	H
V SYNC	I	Pin ⑥ of IC501 on MA-62 board	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10

- *1. “H”: when tape stopped. “L”: when tape running (for approx. 40 msec).
- *2. Sync with drum revolution. 25 Hz 50% DUTY pulse.
- *3. “L”: normally. “H”: when CTL signal is not played back.
- *4. V cycle “H” pulse.
- *5. “H”: when REC start (SP: for approx. 10 sec, LP: for approx. 20 sec)
- *6. “L”: normally. “H”: EDIT mode.
- *7. HI-Z (2.5V) in SP mode. “L”: LP mode.
- *8. According to SP/LP selector. “L”: SP mode, “H”: LP mode.

*9. According to tape REC mode.

Signal	Mode	
	SP	LP
SP (Pin ⑩)	L	H
SP2 (Pin ⑫)	L	L
LP HEAD (Pin ⑬)	L	H

- *10. Composite sync signal (positive polarity).
- *11. V cycle “H” pulse: when A INS.PAUSE mode.
- *12. “L”: when A INS or A INS.PAUSE mode.

3-8. SYSTEM CONTROL — SERVO PERIPHERAL CIRCUIT INTERFACE

Signal	Mode		STOP	FF	REW	TAPE LOADING
	I/O	Pin No.				
REC CTL *1	O	Pin ⑦ of IC501 on MA-62 board	*1	*1	*1	*1
CAP STOP	O	Pin ⑦ of IC501 on MA-62 board	H	L	L	L
STEP PLS	O	Pin ③ of IC501 on MA-62 board	H	H	H	H
CAP V *3	I	Pin ⑨ of IC501 on MA-62 board				
SW POSITION *4	I	Pin ② of IC501 on MA-62 board				
PB CTL	I	Pin ⑦ of IC501 on MA-62 board	H	*6	*6	
VD CTL	I	Pin ⑦ of IC501 on MA-62 board	H	*6	*6	
DRUM PG	I	Pin ⑨ of IC501 on MA-62 board	L	*7	*7	*5
DRUM FG	I	Pin ⑨ of IC501 on MA-62 board	L	*8	*8	*5
CAP FG	I	Pin ⑩ of IC501 on MA-62 board	H/L	*6	*6	*5
INDEX CS	O	Pin ② of IC501 on MA-62 board	*10	*10	*10	*10
CAP RVS	O	Pin ⑦ of IC501 on MA-62 board	H/L	L	H	L
CAP DA *14	O	Pin ⑦ of IC501 on MA-62 board	*11	*11	*11	*11
DRUM DA *14	O	Pin ⑦ of IC501 on MA-62 board	*13	*13	*13	*13
REC•P	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	L
INSERT	O	Pin ⑦ of IC501 on MA-62 board	H	H	H	H

- *1. 25 Hz pulse
- *2. Tape running pulse
- *3. Input terminal for capstan constant voltage driving. Used fro cassette loading/unloading, etc
- *4. Input terminal for switching position adjustment.
- *5. Non periodical pulse
- *6. Cycle pulse proportional to tape speed.
- *7. 25 Hz “H” pulse
- *8. 300 Hz pulse
- *9. Tape running pulse
- *10. 8 msec cycle pulse
- *11. Approx. 2 msec cycle “H” or “L” pulse.
- *12. Approx. 1.5 msec cycle “H” or “L” pulse.
- *13. Approx. 3 msec cycle “H” or “L” pulse.
- *14. Tri-state output of “H”, “L” and “HI-Z (2.5V)”.

CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT• PAUSE
L	L	H	H	H*12	H*12
L	L	H	L	H*12	L
*2	*2	*2	*2	*2	*2
*4	*4	L	L	L	L*11
L	L	*5	L	H*12	L
*6	*6	*6	L	*6	L
*7	*7	L	L	L	L
*9	*9	*8	*8	*9	*9
*9	*9	*8	*8	*9	*9
L	L	*9	*9	*9	*9
L	L	H	L	H	L
L	L	H	H	H	H
*10	*10	*10	*10	*10	*10

mode.

SP	LP
L	H
L	L
L	H

(positive polarity).
 on A INS.PAUSE mode.
 INS.PAUSE mode.

3-8. SYSTEM CONTROL — SERVO PERIPHERAL CIRCUIT INTERFACE

Signal	Mode		STOP	FF	REW	TAPE LOADING	TAPE UNLOADING	PB	PB• PAUSE	SLOW	×2	CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT• PAUSE
	I/O	Pin No.															
REC CTL *1	O	Pin ⑦ of IC501 on MA-62 board	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1
CAP STOP	O	Pin ⑪ of IC501 on MA-62 board	H	L	L	L	L	L	H	H	L	L	L	L	H	L	H
STEP PLS	O	Pin ⑤ of IC501 on MA-62 board	H	H	H	H	H	H	H	*2	H	H	H	H	H	H	H
CAP V *3	I	Pin ③ of IC501 on MA-62 board															
SW POSITION *4	I	Pin ⑫ of IC501 on MA-62 board															
PB CTL	I	Pin ⑩ of IC501 on MA-62 board	H	*6	*6			*1	H/L	*2	*6	*6	*6	*1	H	*1	H
VD CTL	I	Pin ⑪ of IC501 on MA-62 board	H	*6	*6			*1	H/L	*2	*6	*6	*6	*1	H	*1	H
DRUM PG	I	Pin ③ of IC501 on MA-62 board	L	*7	*7	*5	*5	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7
DRUM FG	I	Pin ③ of IC501 on MA-62 board	L	*8	*8	*5	*5	*8	*8	*8	*8	*8	*8	*8	*8	*8	*8
CAP FG	I	Pin ⑩ of IC501 on MA-62 board	H/L	*6	*6	*5	*5	*6	H/L	*9	*6	*6	*6	*6	H/L	*6	H/L
INDEX $\overline{\text{CS}}$	O	Pin ⑫ of IC501 on MA-62 board	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10
CAP RVS	O	Pin ⑫ of IC501 on MA-62 board	H/L	L	H	L	H	L	L	*2	L	L	H	L	L	L	L
CAP DA *14	O	Pin ⑬ of IC501 on MA-62 board	*11	*11	*11	*11	*11	*12	*11	*11	*12	*12	*12	*12	*11	*12	*11
DRUM DA *14	O	Pin ⑭ of IC501 on MA-62 board	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13
REC• $\overline{\text{P}}$	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	L	L	H	L	H	L
$\overline{\text{INSERT}}$	O	Pin ⑪ of IC501 on MA-62 board	H	H	H	H	H	H	H	H	H	H	H	H	H	L	H

- *1. 25 Hz pulse
- *2. Tape running pulse
- *3. Input terminal for capstan constant voltage driving. Used fro cassette loading/unloading, etc.
- *4. Input terminal for switching position adjustment.
- *5. Non periodical pulse
- *6. Cycle pulse proportional to tape speed.
- *7. 25 Hz “H” pulse
- *8. 300 Hz pulse
- *9. Tape running pulse
- *10. 8 msec cycle pulse
- *11. Approx. 2 msec cycle “H” or “L” pulse.
- *12. Approx. 1.5 msec cycle “H” or “L” pulse.
- *13. Approx. 3 msec cycle “H” or “L” pulse.
- *14. Tri-state output of “H”, “L” and “HI-Z (2.5V)”.

3-9. SYSTEM CONTROL — MECHANISM BLOCK INTERFACE

Signal	Mode		HI-SPEED REW	EJECTED	CASSETTE LOADING	CASSETTE UNLOADING	TAPE LOADING	TAPE UNLOADING	STOP	FF	REW	PB	PB- PAUSE	SLOW	×2	CUE	REVIEW	REC	REC PAUSE
	I/O	Pin No.																	
CAM *1	O	Pin ⑪ of IC501 on MA-62 board	L	L	L	L	H	H	L	L	L	L	L	L	L	L	L	L	L
LOAD	O	Pin ⑬ of IC501 on MA-62 board	L	L	H	H	L	L	L	L	L	L	L	L	L	L	L	L	L
CW/CCW	O	Pin ⑭ of IC501 on MA-62 board			H	L	H	L											
MODE 1	I	Pin ⑮ of IC501 on MA-62 board	H	L	L	L	H	H	L	H	H	H	L	L	H	H	H	H	L
MODE 2	I	Pin ⑯ of IC501 on MA-62 board	L	H	H	H	H	H	L	L	L	L	H	H	L	L	L	L	H
MODE 3	I	Pin ⑰ of IC501 on MA-62 board	H	H	H	H	L	L	L	L	L	H	H	H	H	H	L	H	H
MODE 4	I	Pin ⑱ of IC501 on MA-62 board	H	H	H	H	H	H	L	H	H	L	L	L	L	L	L	L	L
REC PRF	I	Pin ⑲ of IC501 on MA-62 board	*2	L	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2
C-UP/DOWN	I	Pin ⑳ of IC501 on MA-62 board	L	H	H→L	L→H	L	L	L	L	L	L	L	L	L	L	L	L	L
T REEL	I	Pin ㉑ of IC501 on MA-62 board	*3	H/L	H/L	H/L	H/L	H/L	H/L	*3	*3	*3	H/L	*3	*3	*3	*3	*3	H/L
S REEL	I	Pin ㉒ of IC501 on MA-62 board	*3	H/L	H/L	H/L	*3	*3	H/L	*3	*3	*3	H/L	*3	*3	*3	*3	*3	H/L
LAMP	O	Pin ㉓ of IC501 on MA-62 board	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4
DEW	I	Pin ㉔ of IC501 on MA-62 board	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5
CAP V	I	Pin ㉕ of IC501 on MA-62 board	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6
CAP STOP	O	Pin ㉖ of IC501 on MA-62 board	L	H	H	H	L	L	H	L	L	L	H	H	L	L	L	L	H
CAP RVS	O	Pin ㉗ of IC501 on MA-62 board	H	H			L	H	H/L	L	H	L	L	L/*9	L	L	H	L	L
CAP DA *8	O	Pin ㉘ of IC501 on MA-62 board																	
T SENS	I	Pin ㉙ of IC501 on MA-62 board	*7	*4	*4	*4	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7
S SENS	I	Pin ㉚ of IC501 on MA-62 board	*7	*4	*4	*4	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	7	*7	*7

*1. "H": when mechanical mode shifted.

*2. "L": when erasure protection tab is removed, "H": when not removed.

*3. Cycle pulse proportional to reel rotation speed.

*4. Approx. 2 msec cycle "H" pulse.

*5. "H": normally.

*6. Input terminal for capstan constant voltage driving. Used for FF/REW, cassette loading/unloading, etc.

*7. "L": normally. 2 msec cycle "H" pulse: when tape top or end is detected.

*8. Tri-state output of "H", "L" and "HI-Z (2.5V)".

*9. Tape running pulse

3-10. SYSTEM CONTROL — SYSTEM CONTROL PERIPHERAL CIRCUIT INTERFACE

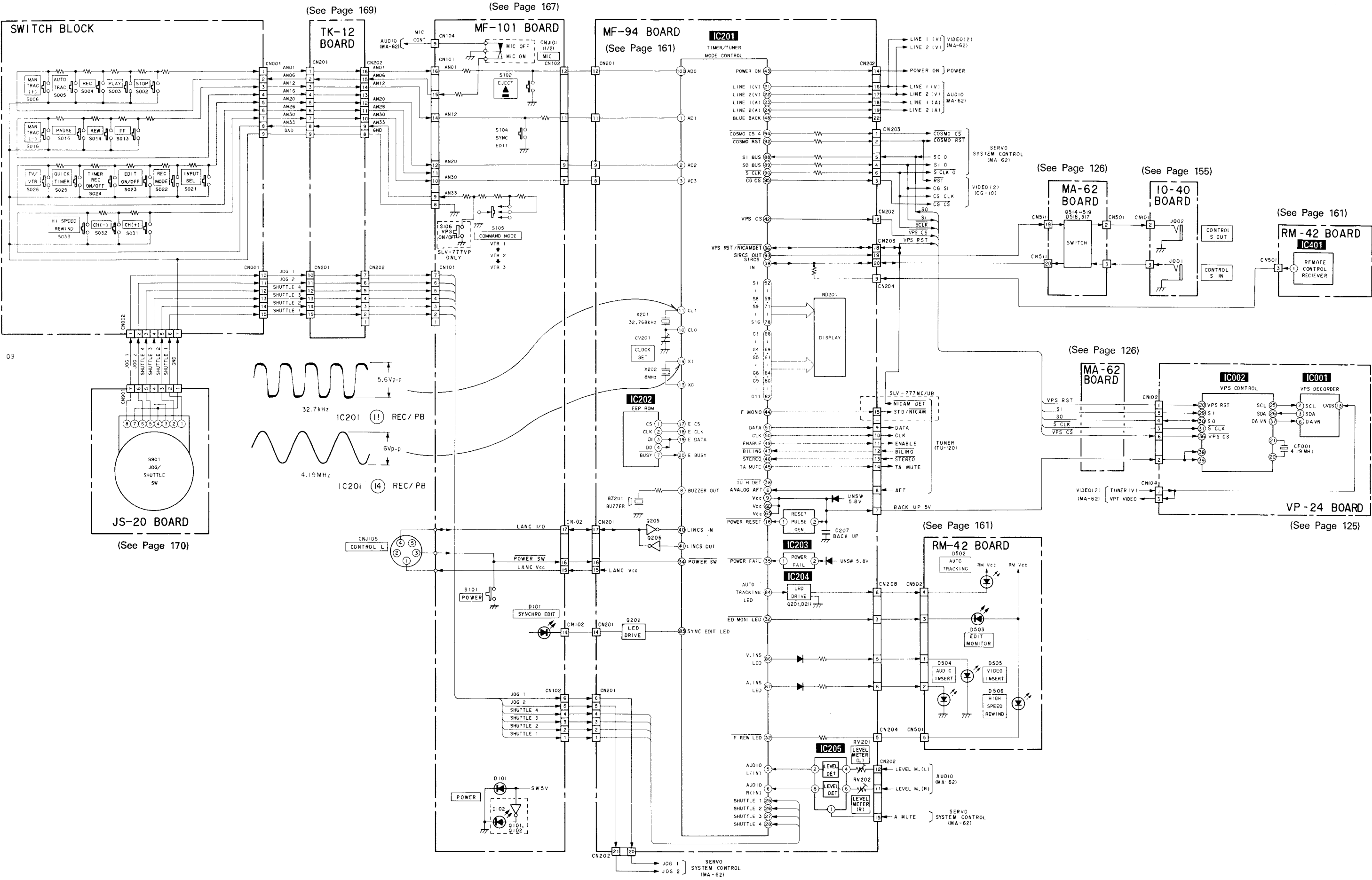
Signal	I/O	Pin No.	Input/output level
$\overline{\text{COSMO}}\cdot\text{RESET}$	I	Pin ④⑩ of IC501 on MA-62 board	“H”: normally. “L”: when power failure detected or power failure restored.
$\overline{\text{COSMO}}\cdot\text{CS}$	I	Pin ④④ of IC501 on MA-62 board	Chip select signal from timer micro computer. V cycle “L” pulse.
SI•BUS	I	Pin ④⑤ of IC501 on MA-62 board	Serial communication data from timer micro computer. V cycle “L” pulse.
SO•BUS	O	Pin ④⑥ of IC501 on MA-62 board	Serial communication data to timer micro computer. V cycle “L” pulse.
S CLK	I	Pin ④⑦ of IC501 on MA-62 board	Serial communication clock with timer micro computer. V cycle “L” pulse.
S IN 2	I	Pin ⑦⑨ of IC501 on MA-62 board	Serial communication data from INDEX IC. 8 msec cycle “L” pulse.
S OUT 2	O	Pin ⑧① of IC501 on MA-62 board	Serial communication data to INDEX IC. 8 msec cycle “L” pulse.
S CLK 2	O	Pin ⑧① of IC501 on MA-62 board	Serial communication clock to INDEX IC. 8 msec cycle “L” pulse.
INDEX $\overline{\text{CS}}$	O	Pin ⑧② of IC501 on MA-62 board	Chip select signal to INDEX IC. 8 msec cycle “L” pulse.

3-11. SYSTEM CONTROL — AUDIO BLOCK INTERFACE

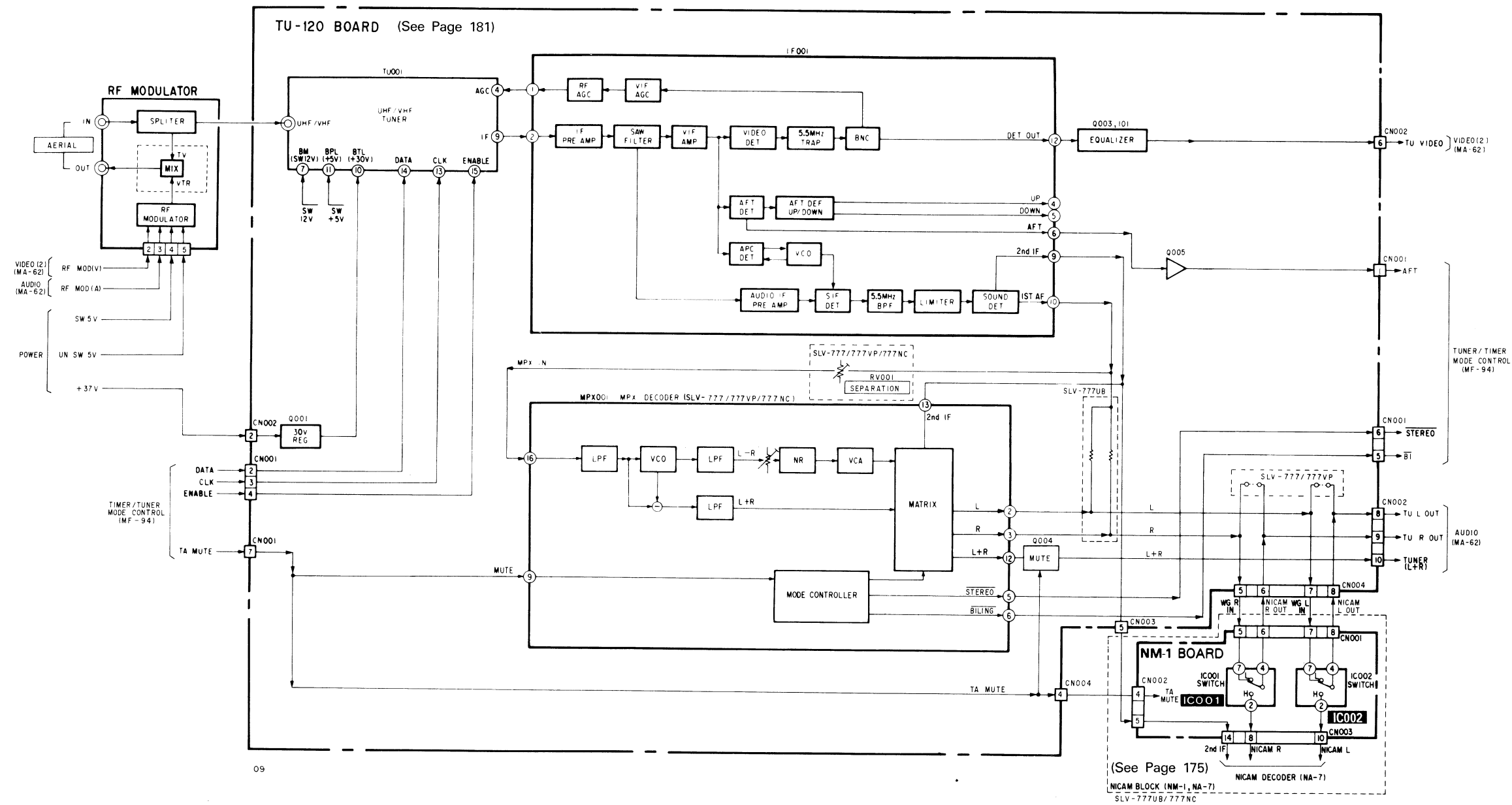
Signal	Mode		STOP/ FF/REW	TAPE LOADING	TAPE UNLOADING	PB	PB• PAUSE	SLOW	×2	CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT• PAUSE
	I/O	Pin No.													
$\overline{\text{AF}}\cdot\text{PB}$	O	Pin ⑤ of IC501 on MA-62 board	H	H	H	L	L	L	L	L	L	H	H	*1	H
MONI (L)	O	Pin ⑩ of IC501 on MA-62 board	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1
MONI (R)	O	Pin ⑨ of IC501 on MA-62 board	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1
AF ENVELOP	I	Pin ⑪ of IC501 on MA-62 board													
NA•PB	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	H	H	H	H	H	H	L	L	*1	L
$\overline{\text{A}}\cdot\text{MUTE}$	O	Pin ③ of IC501 on MA-62 board	L	L	L	*4	H	H	H	H	H	H	H	H	H
SP•2	O	Pin ② of IC501 on MA-62 board	*2	*2	*2	*3	*3	*3	*3	*3	*3	*2	*2	*3	*3
REC• $\overline{\text{P}}$	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	H	L	H	L

*1. According to audio monitor
*2. According to SP/LP selector. “L”: SP mode, “H”: LP mode.
*3. According to tape REC mode. “L”: SP mode, “H”: LP mode.
*4. “H”: when CTL signal is not played back.

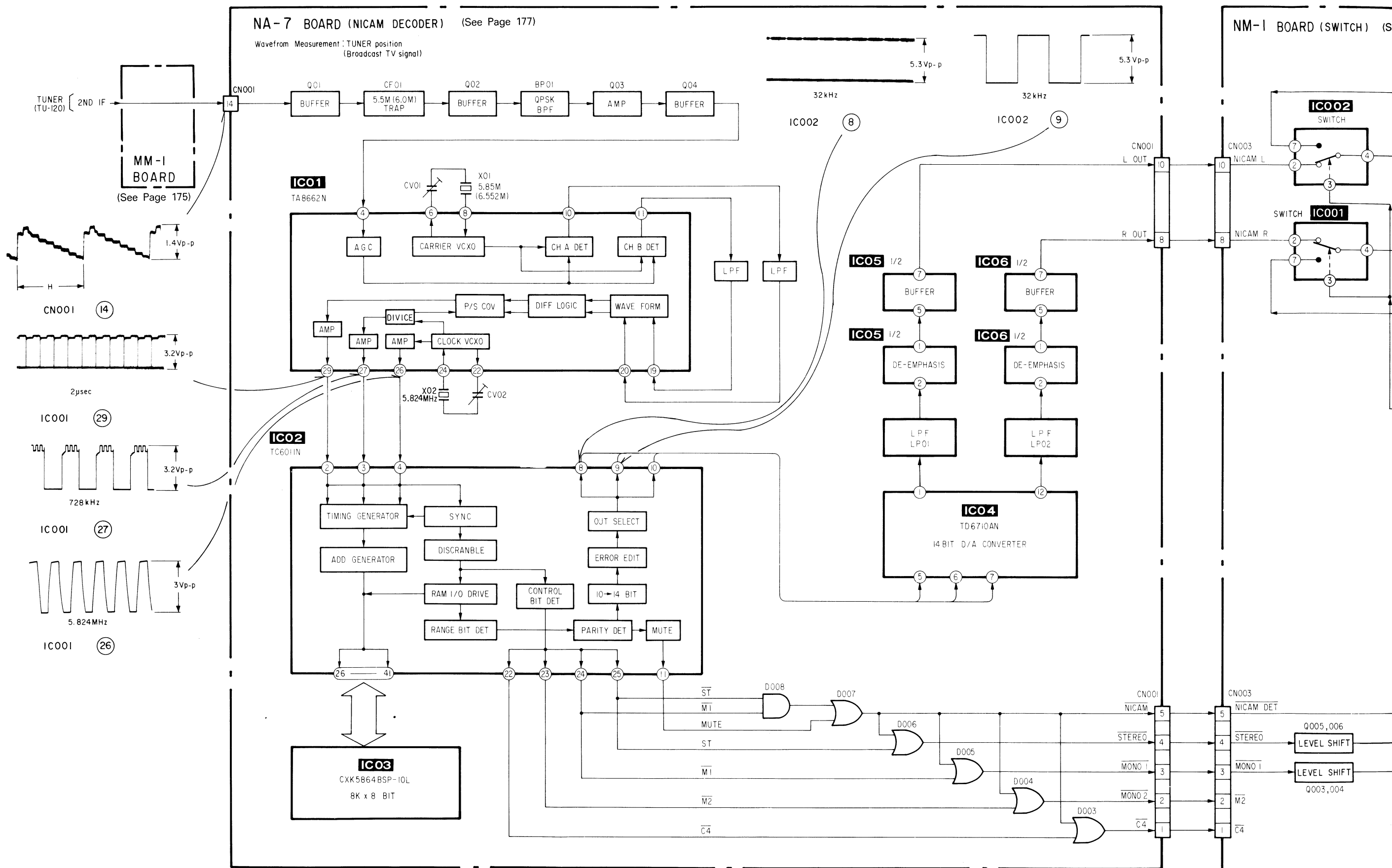
3-13. TIMER, TUNER, MODE CONTROL BLOCK DIAGRAM

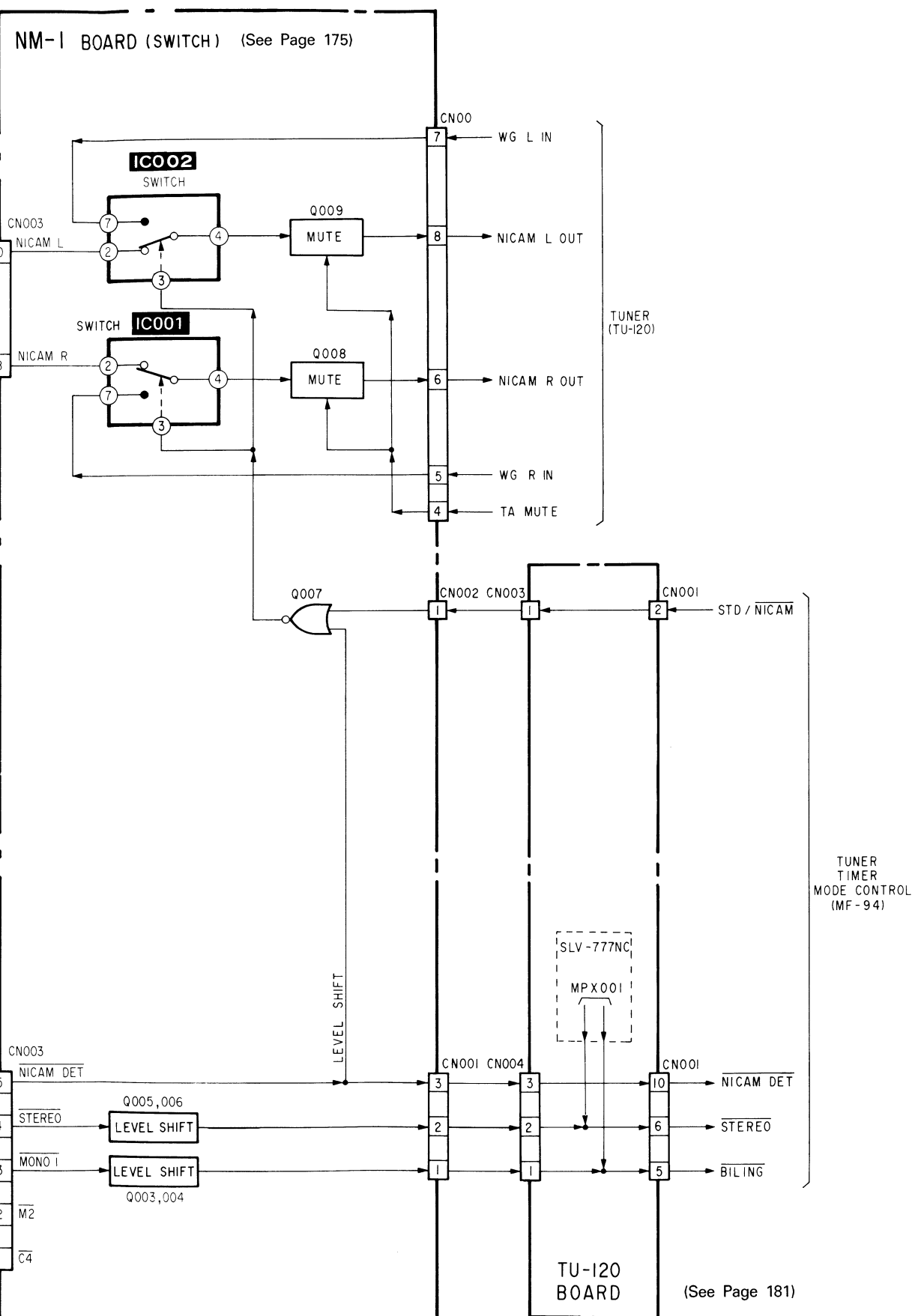


3-14. TUNER BLOCK DIAGRAM



3-15. NICAM BLOCK DIAGRAM





3-16. NICAM (NEAR INSTANTANEOUS COMPAND SYSTEM) (SLV-777NC/UB ONLY)

NICAM, or NICAM 728 which refers to its bit rate, stands for 14-to-10 bit Near Instantaneous Compand System which executes signal processing of PCM, employing the television's PCM sound multiplex broadcast system. By utilizing digital method for TV sound multiplex broadcasting, the following types of broadcasts are accomplished which heretofore were impossible to achieve with analog multiplex broadcasting.

- 1) High quality sound broadcast independent from FM sound (analog).
- 2) Data broadcast, while retaining the compatibility of receiving equipment. Tackles future diversification to facsimile broadcast, etc. (but not with SLV-777UB/777NC).

3-16-1. NICAM Standard

		SYSTEM-B/G Europe, etc.	SYSTEM-2 UK
Analog sound (Conventional mono 1ch TV sound)	Modulation method	FM	
	Sub-carrier frequency	5.5 MHz	6.0 MHz
	Signal level (image: FM)	20:1	10:1
Digital sound (NICAM)	Modulation method	DPSK	
	Sub-carrier frequency	5.850 MHz	6.552 MHz
	Signal level (image: FM)	100:1	
	Bit rate	728K 6PS	
	Sampling frequency	32 kHz	
	Quantized bit count	14 bit	
	Compression/expansion	10-to-14 bit ELONGATION COMPAND	
	Digital sound channels	2-CH	

3-16-2. NICAM Receiving System

The RF signal that is input from ANT is selected, amplified, & IF converted by the tuner; and it then enters VIF. At VIF, it is input into the image detection circuit for acquiring FM signal & QPSK signal as intercarrier; as well as into its parallel image detection circuit for reproducing image signal. To acquire QPSK signal of superior quality, quasi-parallel tone method is employed here. The QPSK signal that is output from VIF passes through QPSK DEMOD, PCM decoder, & D/A converter; then enters audio SW block, and is finally output as L, R signals.

3-16-3. Description of NA-7 Board (NICAM Decoder)

The 2nd IF signal that is output from Pin ⑨ of IF block passes through NM-1 board substrate, and enters Pin ⑭ of CN01 on NA-7 board (Fig. 1.).

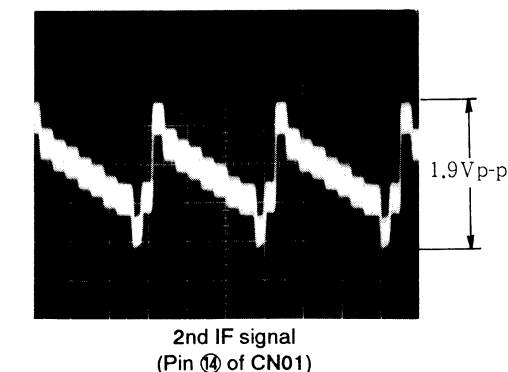


Fig. 1.

Here, the 2nd IF signal is superimposed with video signal & FM carrier 5.5 MHz [$\times 6.0$ MHz] signal, aside from QPSK signal. After passing through buffer Q01, the Pin ⑭ 2nd IF signal is FM trapped (CF01), and then passes through QPSK BPF (BP01) where its unwanted signal is eliminated. Next, it is undergoes level adjustment by AMP Q03 (about 13 dB), and is then input into QPSK demodulation IC IC01, Pin ④ (Fig. 2.).

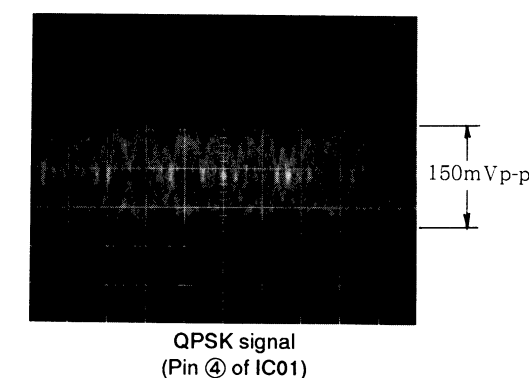
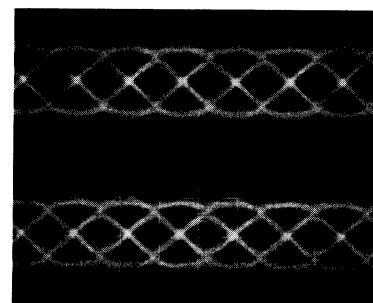


Fig. 2.

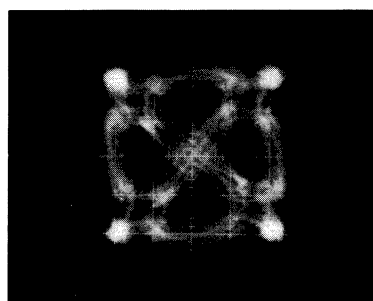
The input level at Pin ④ is 150 mVp-p for standard signal (P/S2=20 dB).

After passing through AGC, the signal that is input from Pin ④ is subject to phase synchronization detection by two VCXO, that is by a signal which is phase synchronized with 2nd IF carrier 5.58 MHz [± 6.552 MHz] and a signal whose phase is 180° different from it; next it is output as eye pattern through Pins ⑩, ⑪ from where it then passes through the prescribed base band LPF, and is once again input into IC01.

The signal entering Pins ⑩, ⑪ (Fig. 3-1.) passes through wave shaper, difference logic, parallel to serial conversion; and is then output through Pin ⑫ as PCM data.



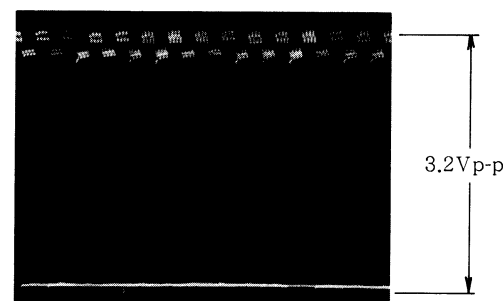
Eye pattern
(Pin ⑩ of IC01 up,
Pin ⑪ of IC01 down)
Fig. 3-1.



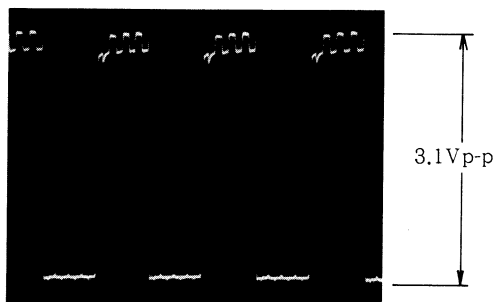
Eye pattern
(X-Y wave of Fig. 3-1.)
Fig. 3-2.

Similarly, PCM master clock 5.824 MHz is output through Pin ⑫, and its 1/8th 728kHz bit clock through Pin ⑬.

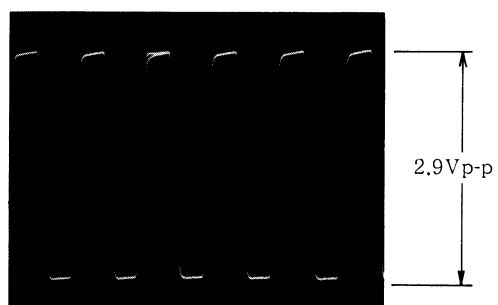
The PCM data & clocks that are output through Pins ⑫ (Fig. 6.), ⑬ (Fig. 5.), ⑭ (Fig. 4.) of IC01 are input into the next PCM decoder IC02.



PCM data
(Pin ⑫ of IC01)
Fig. 4.



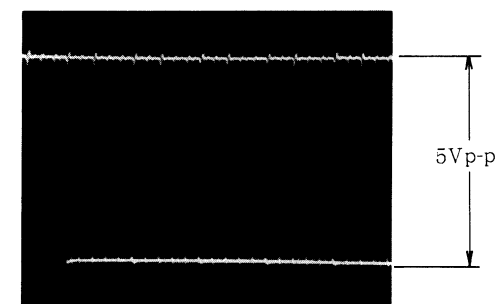
728 kHz bit clock
(Pin ⑬ of IC01)
Fig. 5.



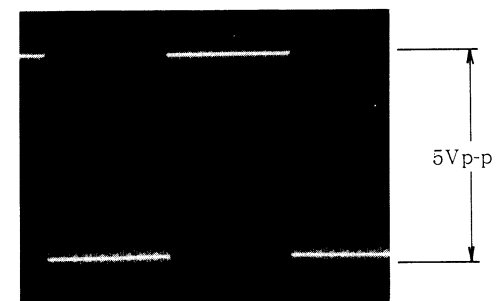
5.824 MHz master clock
(Pin ⑭ of IC01)
Fig. 6.

The PCM decoder executes various signal processing, like, descramble, deinterleave, range bit detection, 10-to-14 bit elongation, error compensation, muting, and so on.

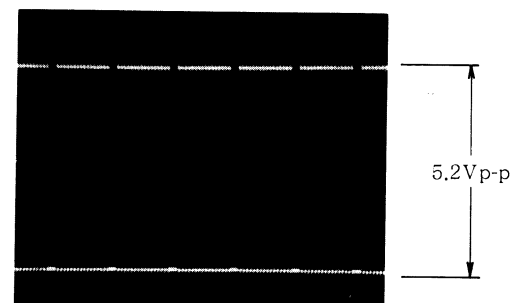
As a result of the various signal processing executed by IC02, identification signal as well as the shift clock (Fig. 9.), work clock (Fig. 8.), DA data (Fig. 7.), etc. that is needed by D/A converter are output.



DA data
(Pin ⑩ of IC02)
Fig. 7.



Word clock
(Pin ⑨ of IC02)
Fig. 8.



Shift clock
(Pin ⑧ of IC02)
Fig. 9.

At IC04, the input DA data, after passing through integrator and sample-hold circuit, is converted into analog signal by a 14-bit 2ch D/A converter; and is then output through Pin ① Lch (Fig. 10.), Pin ② Rch (Fig. 10.).

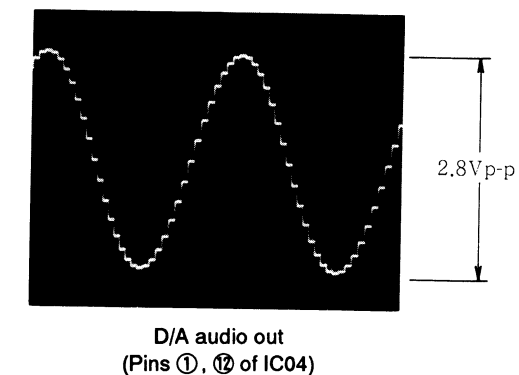


Fig. 10.

After passing through L.P.F., the L, R signal passes through buffer and de-emphasis circuit that is composed of IC05, IC06; and is then output as CN01 Pin ⑩ L (Fig. 11.), Pin ⑧ R (Fig. 11.) signal.

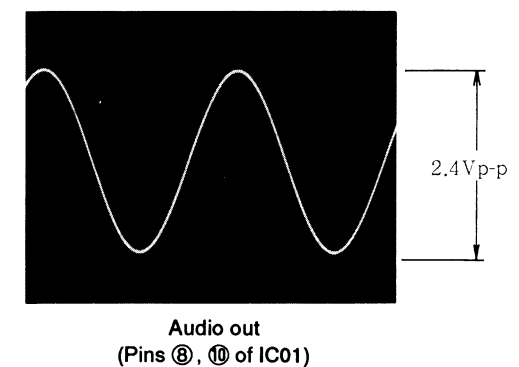
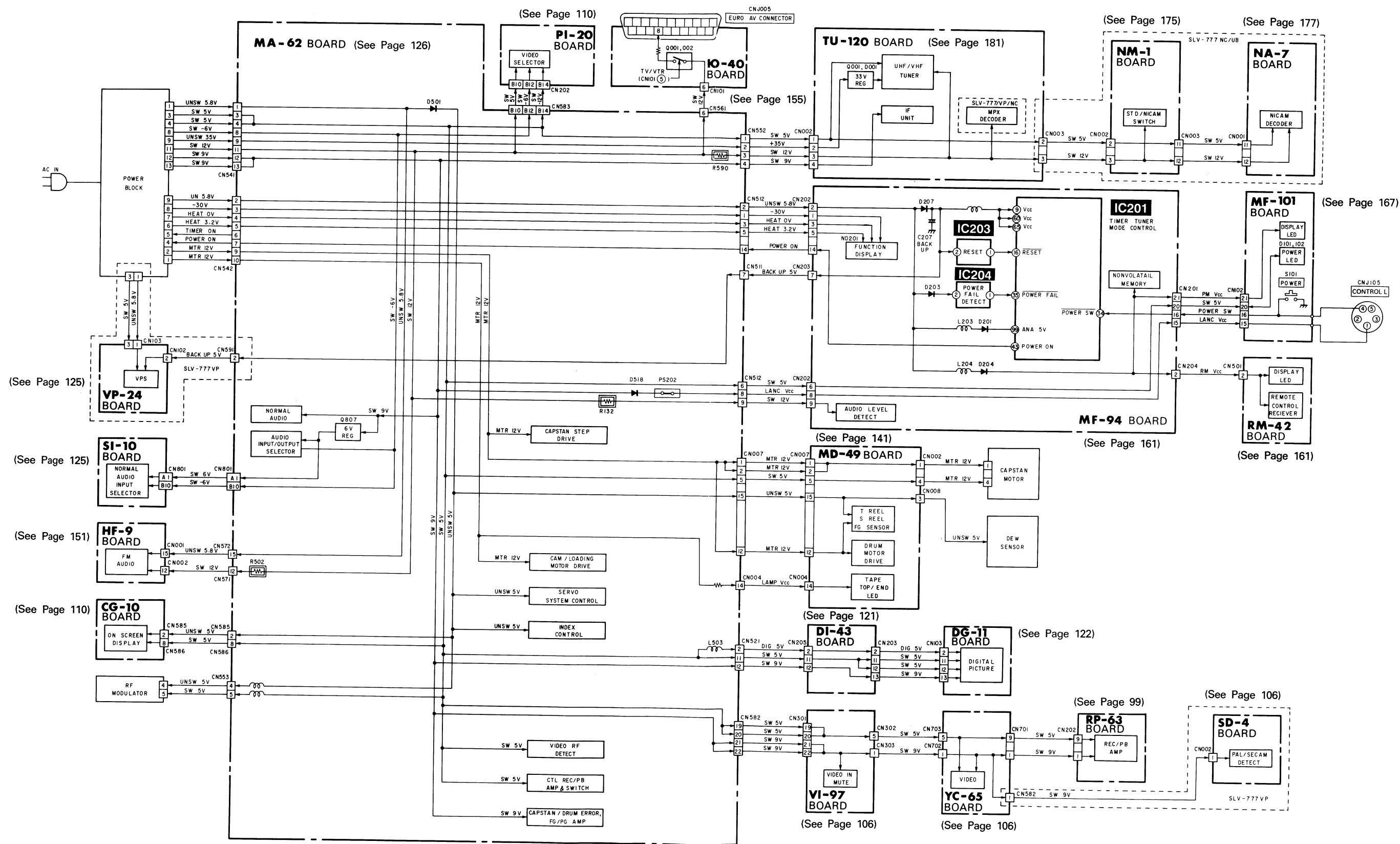


Fig. 11.

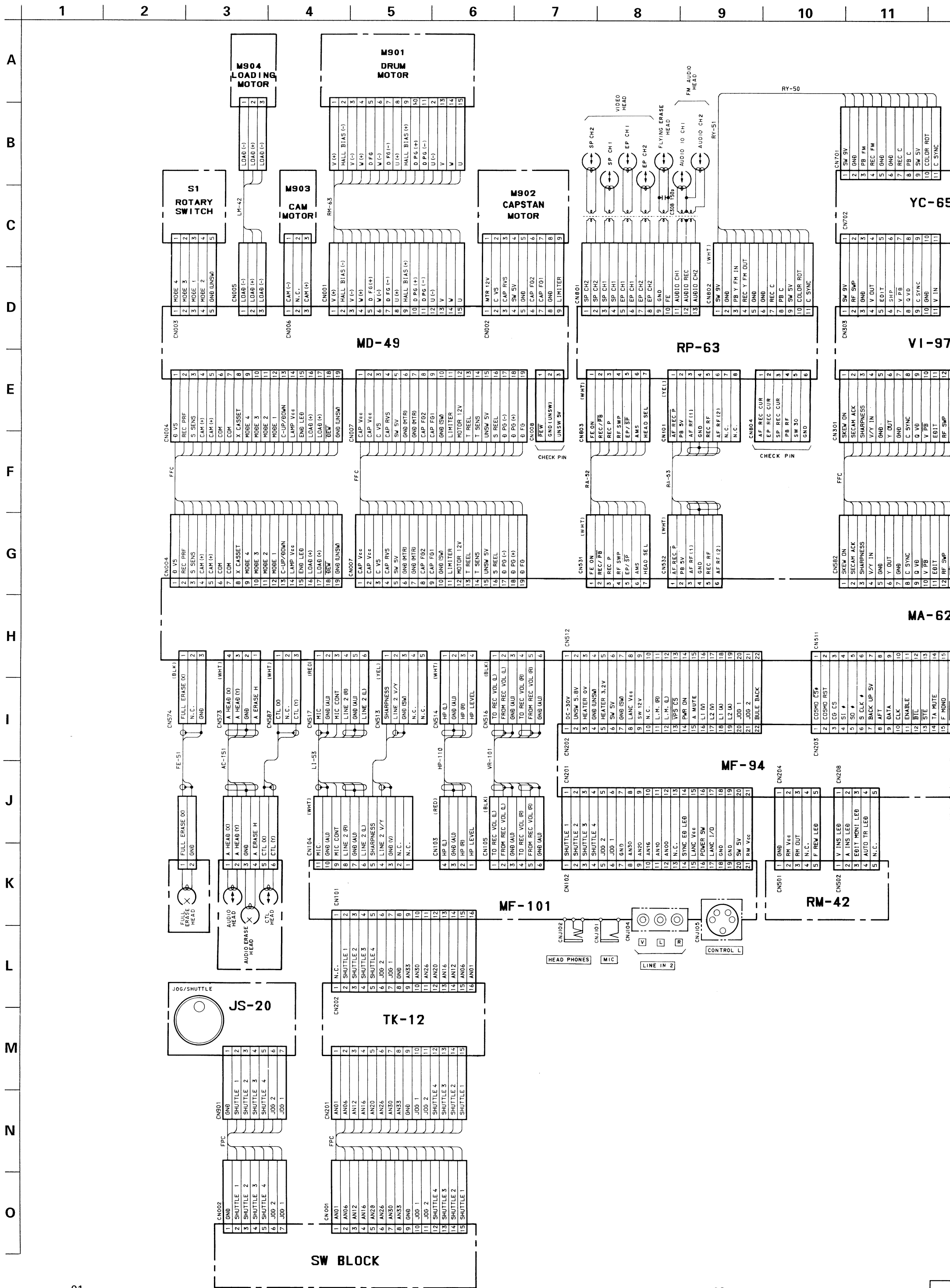
Identification signal is prepared with a combination of ST, M, MUTE signal; and it is then input into IC201 on MF-94 board.
* Frequency shown in [] is UK board value.

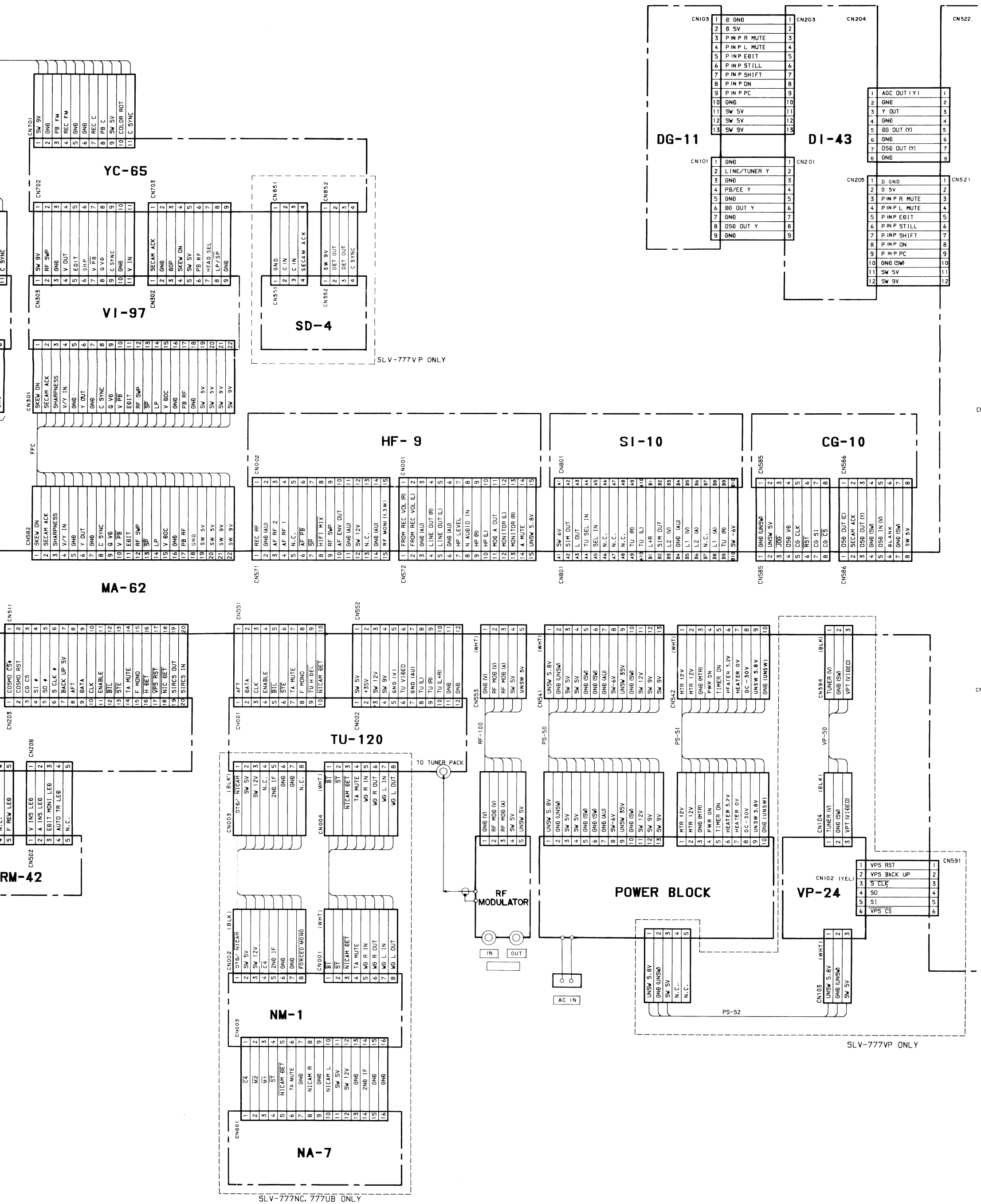
3-17. POWER BLOCK DIAGRAM

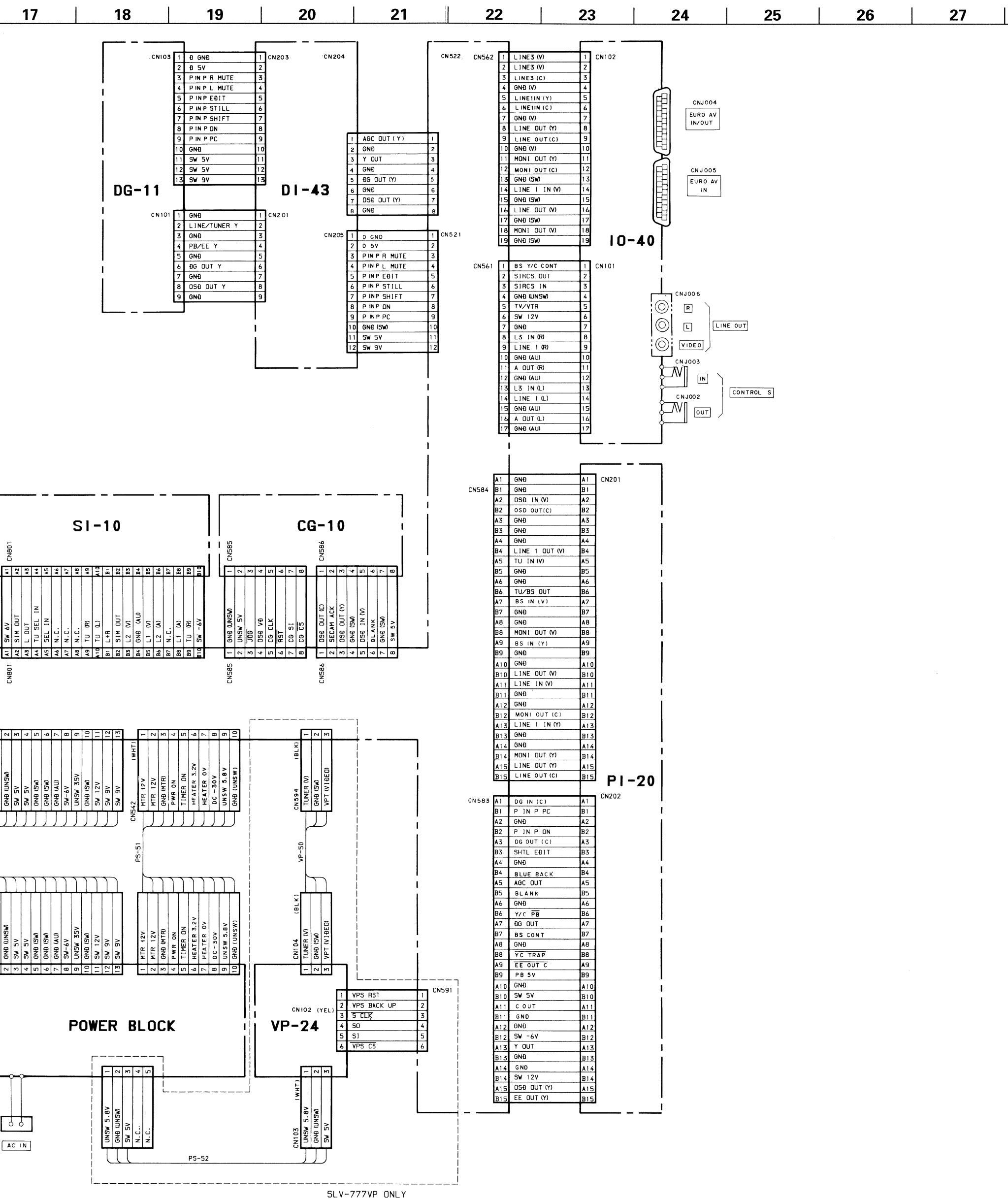


PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. FRAME SCHEMATIC DIAGRAM







THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this , the necessary note is printed in each block.)

- **For printed wiring boards.**
-  : indicated a lead wire mounted on the component side.
-  : indicated a lead wire mounted on the conductor side.
-  : Through hole.
-  : Parts mounted on the conductor side.
-  : Pattern from the side which enables seeing.
-  : Pattern of the rear side.
- Circled numbers refer to waveforms.

Caution:

Pattern face side: Parts on the pattern face side seen from (Conductor Side) the pattern face are indicated.

Parts face side: Parts on the parts face side seen from the (Component side) parts face are indicated.

- **For schematic diagrams.**
- Caution when replacing chip parts.
New parts must be attached after removal of chip.
Be careful not to heat the minuts side of tantalum capacitor, because it is damaged by the heat.
- All resistors are in ohms, 1/4W unless otherwise noted.
Chip resistor are 1/10W unless otherwise noted.
kΩ : 1000Ω , MΩ : 1000kΩ .
- All capacitors are in μ F unless otherwise noted. pF: μ μ F.
50V or less are not indicated except for electrolytics and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
-  : nonflammable resistor.
-  : fusible resistor.
-  : panel designation.
-  : internal component.
-  : adjustment for repair.
-  : B+ Line.
-  : B- Line.
-  : IN/OUT direction of (+, -) B LINE.
- Circled numbers refer to waveforms.
- Voltages are dc between ground and measurement points.
- Readings are taken with a color-bar signal input.
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltages are taken with a VOM (Input impedance 10MΩ).
- Voltage variations may be noted due to normal production tolerances.

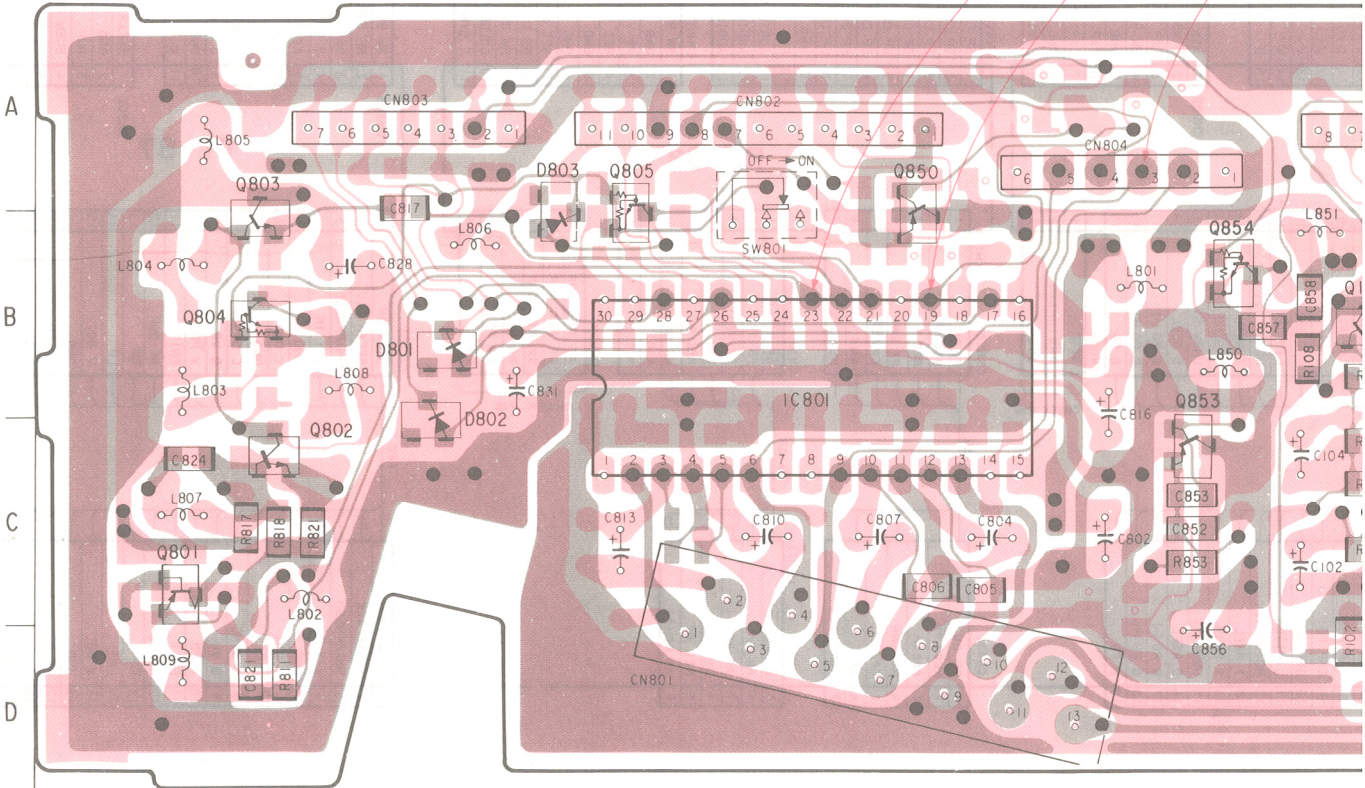
Note: The components identi- fied by mark  or dotted line with mark  are critical for safty.
Replace only with part number specified.

When indicating parts by refer-
ence number, please include the
board name.

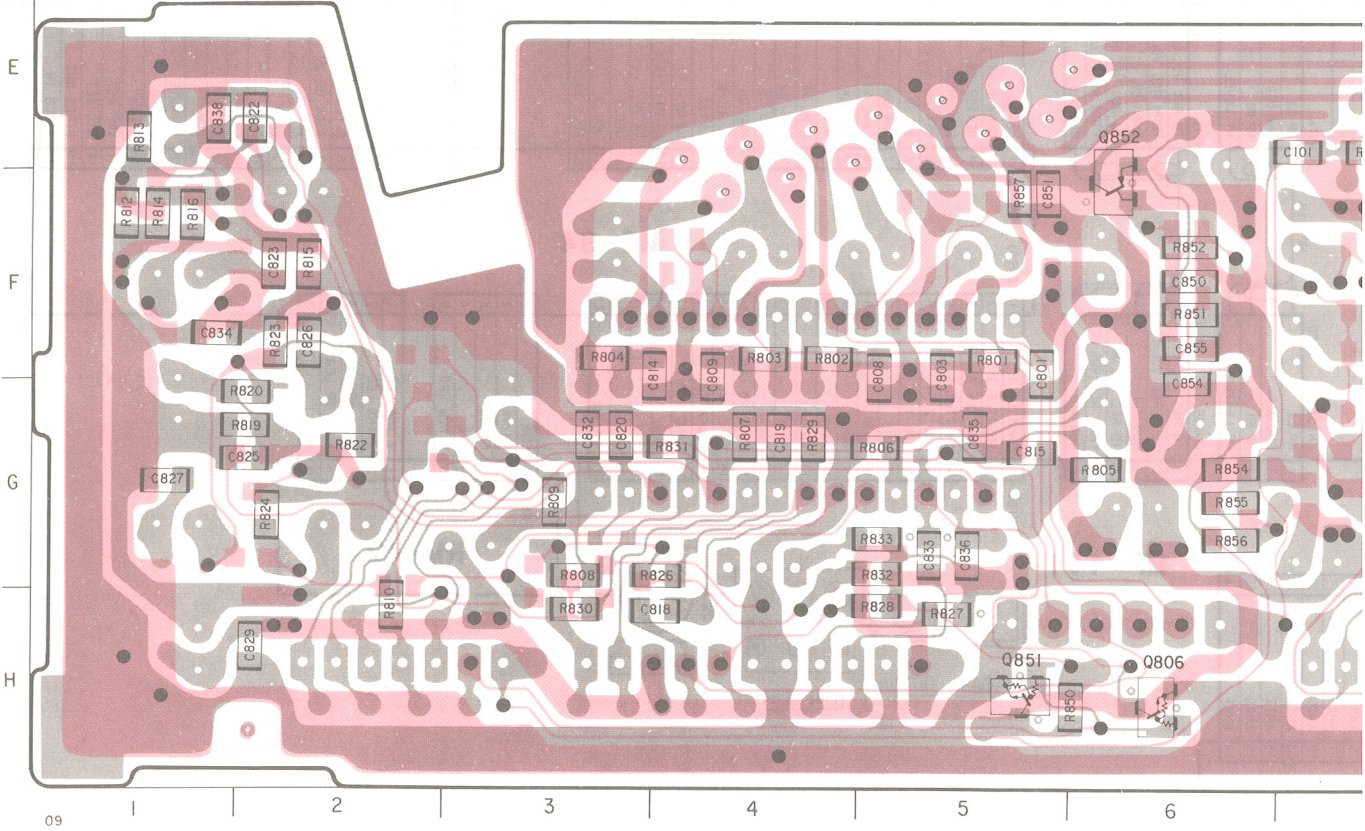
RP-63 (HEAD AMP) PRINTED WIRING BOARD
— Ref. No. RP-63 BOARD: 6000 series —

DIODE				IC				TRANSISTOR			
D102	8-719-400-18	DIODE	MA152WK	IC101	8-759-320-55	IC	HA12115MP	Q101	8-729-216-22	TRANSISTOR	2SA1162
D801	8-719-400-18	DIODE	MA152WK	IC101	8-759-320-55	IC	HA12115MP	Q801	8-729-216-22	TRANSISTOR	2SA1162
D802	8-719-400-18	DIODE	MA152WK	IC801	8-759-320-52	IC	HA118019NT	Q802	8-729-901-78	TRANSISTOR	2SC2412K-R
D803	8-719-400-18	DIODE	MA152WK					Q803	8-729-901-78	TRANSISTOR	2SC2412K-R
								Q804	8-729-901-01	TRANSISTOR	DTC144EK
								Q805	8-729-901-01	TRANSISTOR	DTC144EK
								Q806	8-729-901-01	TRANSISTOR	DTC144EK
								Q850	8-729-301-98	TRANSISTOR	2SB1000A-1
								Q851	8-729-901-01	TRANSISTOR	DTC144EK
								Q852	8-729-216-22	TRANSISTOR	2SA1162
								Q853	8-729-216-22	TRANSISTOR	2SA1162
								Q854	8-729-901-01	TRANSISTOR	DTC144EK

RP-63 BOARD (COMPONENT SIDE)



RP-63 BOARD (CONDUCTOR SIDE)

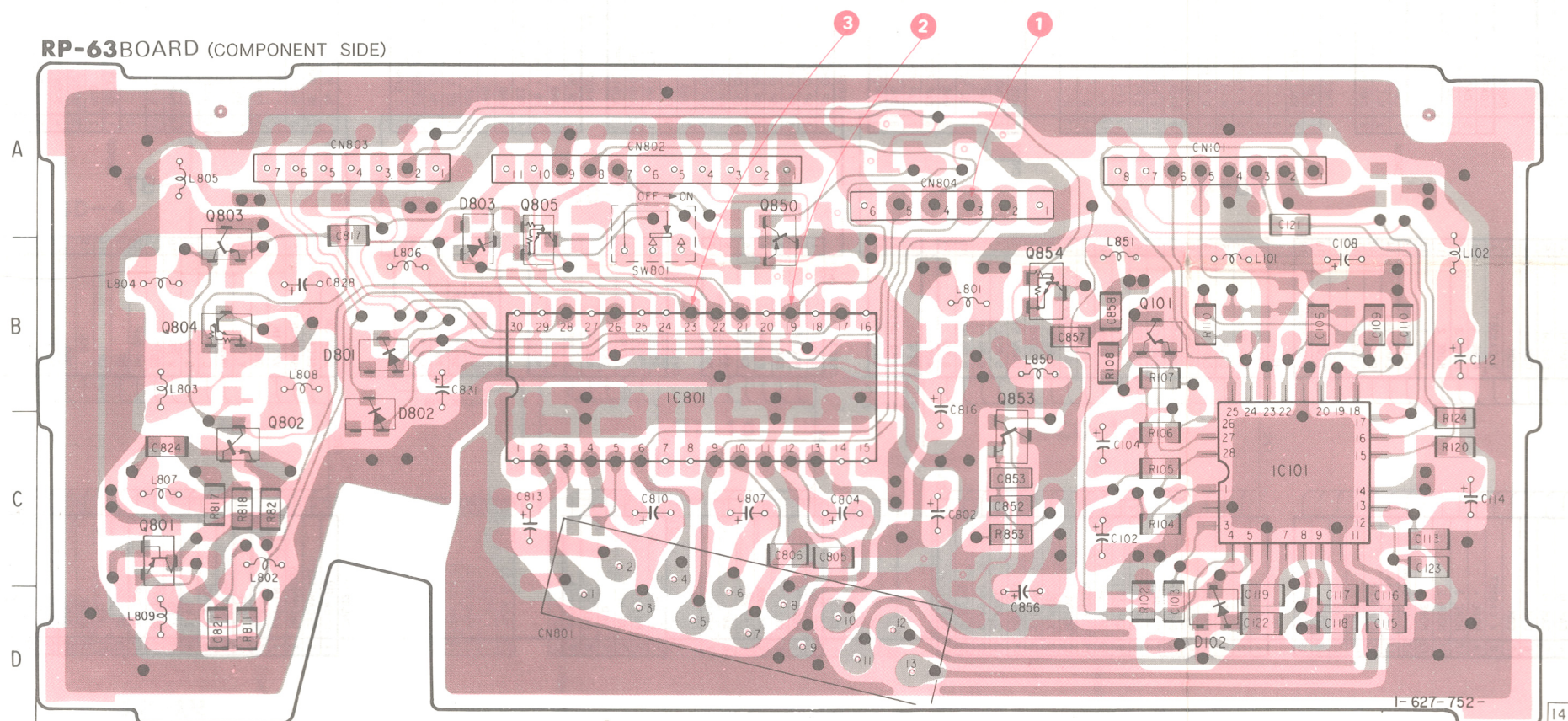


RP-63 BOARD

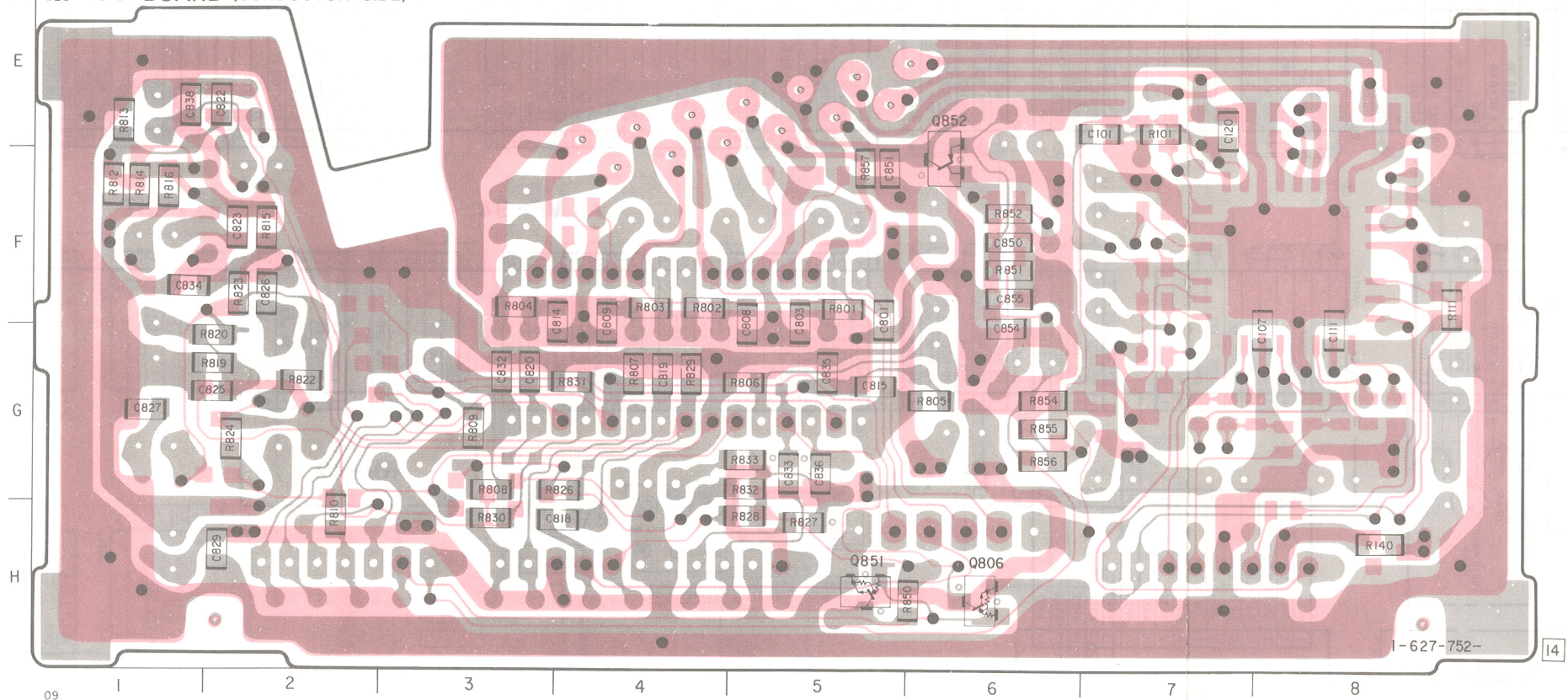
D102	D-7
D801	B-2
D802	B-2
D803	A-3
IC101	C-8
IC801	B-4
Q101	B-7
Q801	C-1
Q802	C-2
Q803	B-2
Q804	B-2
Q805	A-3
Q806	H-6
Q850	A-5
Q851	H-5
Q852	F-6
Q853	C-6
Q854	B-5

— Ref. No. RP-63 BOARD: 6000 series —

RP-63 BOARD (COMPONENT SIDE)



RP-63 BOARD (CONDUCTOR SIDE)



RP-63 BOARD

D102	D-7
D801	B-2
D802	B-2
D803	A-3
IC101	C-8
IC801	B-4
Q101	B-7
Q801	C-1
Q802	C-2
Q803	B-2
Q804	B-2
Q805	A-3
Q806	H-6
Q850	A-5
Q851	H-5
Q852	F-6
Q853	C-6
Q854	B-5

RP-63 (HEAD AMP) SCHEMATIC DIAGRAM

— Ref. No. RP-63 BOARD: 6000 series —

A

B

C

D

E

F

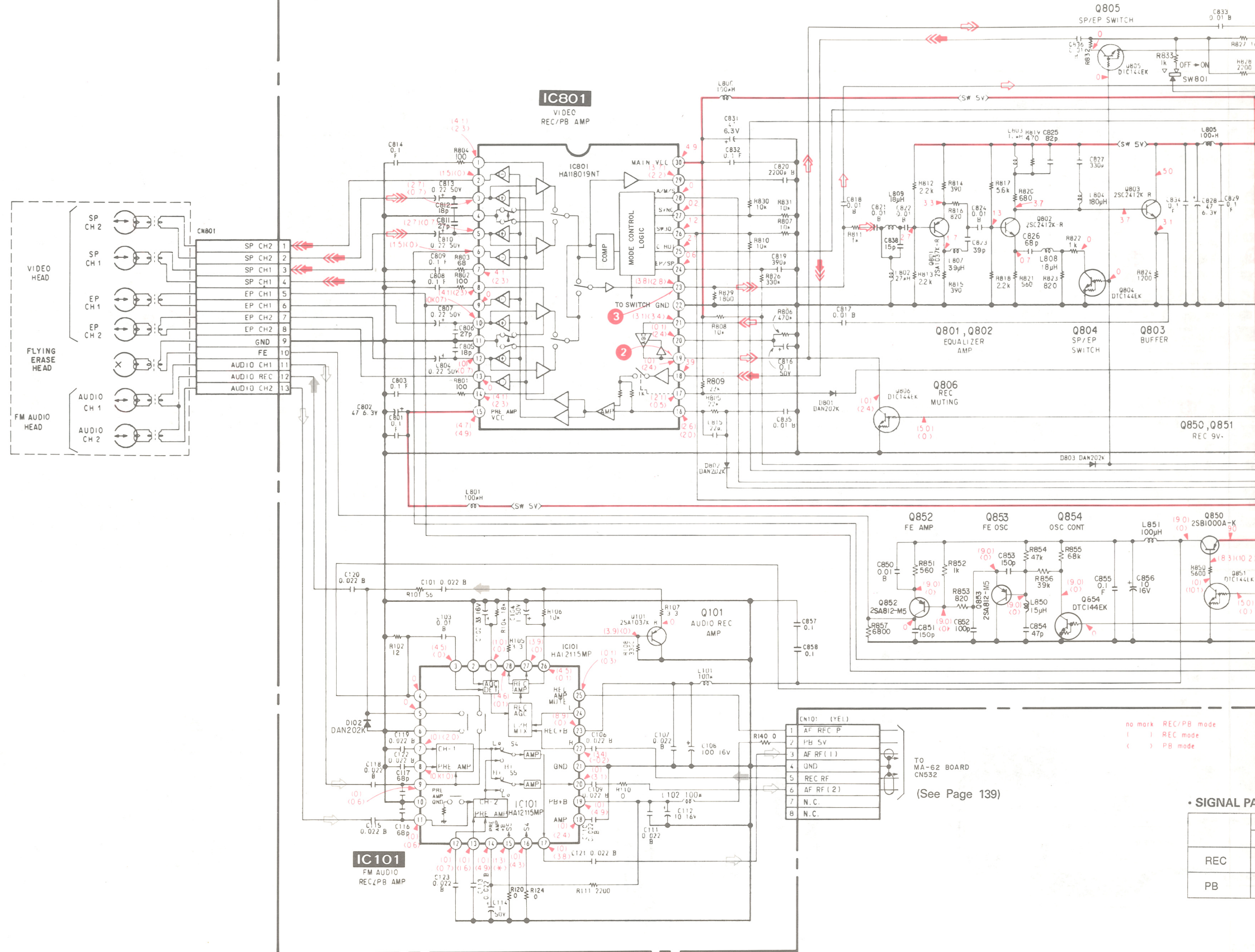
G

H

I

J

RP-63 BOARD



- 101 -

DIODE

D705	8-719-104-34	DIODE 1S2835-T1
D801	8-719-400-18	DIODE DAN202K-T-146
D803	8-719-400-18	DIODE DAN202K-T-146

IC

IC701	8-759-420-07	IC AN3231K
IC702	8-752-321-89	IC CXL5003P
IC801	8-759-320-78	IC HA118016NT
IC802	8-759-822-05	IC LA7213
IC860	8-759-420-53	IC AN3592K

IC861	8-759-991-54	IC MSM6989RS
IC862	8-752-006-12	IC CX20061
IC863	8-759-822-05	IC LA7213
IC864	8-759-000-49	IC MC14066BCP

TRANSISTOR

Q702	8-729-216-22	TRANSISTOR 2SA1162
Q703	8-729-901-47	TRANSISTOR DTA143EK
Q704	8-729-901-01	TRANSISTOR DTC144EK
Q705	8-729-100-66	TRANSISTOR 2SC1623
Q706	8-729-216-22	TRANSISTOR 2SA1162

Q707	8-729-100-66	TRANSISTOR 2SC1623
Q709	8-729-100-66	TRANSISTOR 2SC1623
Q711	8-729-216-22	TRANSISTOR 2SA1162
Q715	8-729-901-01	TRANSISTOR DTC144EK
Q716	8-729-901-01	TRANSISTOR DTC144EK

Q717	8-729-100-66	TRANSISTOR 2SC1623
Q719	8-729-216-22	TRANSISTOR 2SA1162
Q721	8-729-100-66	TRANSISTOR 2SC1623
Q722	8-729-901-01	TRANSISTOR DTC144EK
Q723	8-729-901-01	TRANSISTOR DTC144EK

Q801	8-729-100-66	TRANSISTOR 2SC1623
Q802	8-729-901-01	TRANSISTOR DTC144EK (SLV-777VP)
Q803	8-729-100-66	TRANSISTOR 2SC1623
Q804	8-729-900-53	TRANSISTOR DTC114EK
Q805	8-729-216-22	TRANSISTOR 2SA1162

Q806	8-729-901-01	TRANSISTOR DTC144EK
Q807	8-729-100-66	TRANSISTOR 2SC1623 (SLV-777VP)
Q808	8-729-100-66	TRANSISTOR 2SC1623
Q809	8-729-100-66	TRANSISTOR 2SC1623
Q810	8-729-901-04	TRANSISTOR DTA114EK-T146

Q811	8-729-216-22	TRANSISTOR 2SA1162
Q812	8-729-100-66	TRANSISTOR 2SC1623
Q852	8-729-901-01	TRANSISTOR DTC144EK (SLV-777VP)
Q860	8-729-809-77	TRANSISTOR 2SC3142-J4
Q862	8-729-901-01	TRANSISTOR DTC144EK

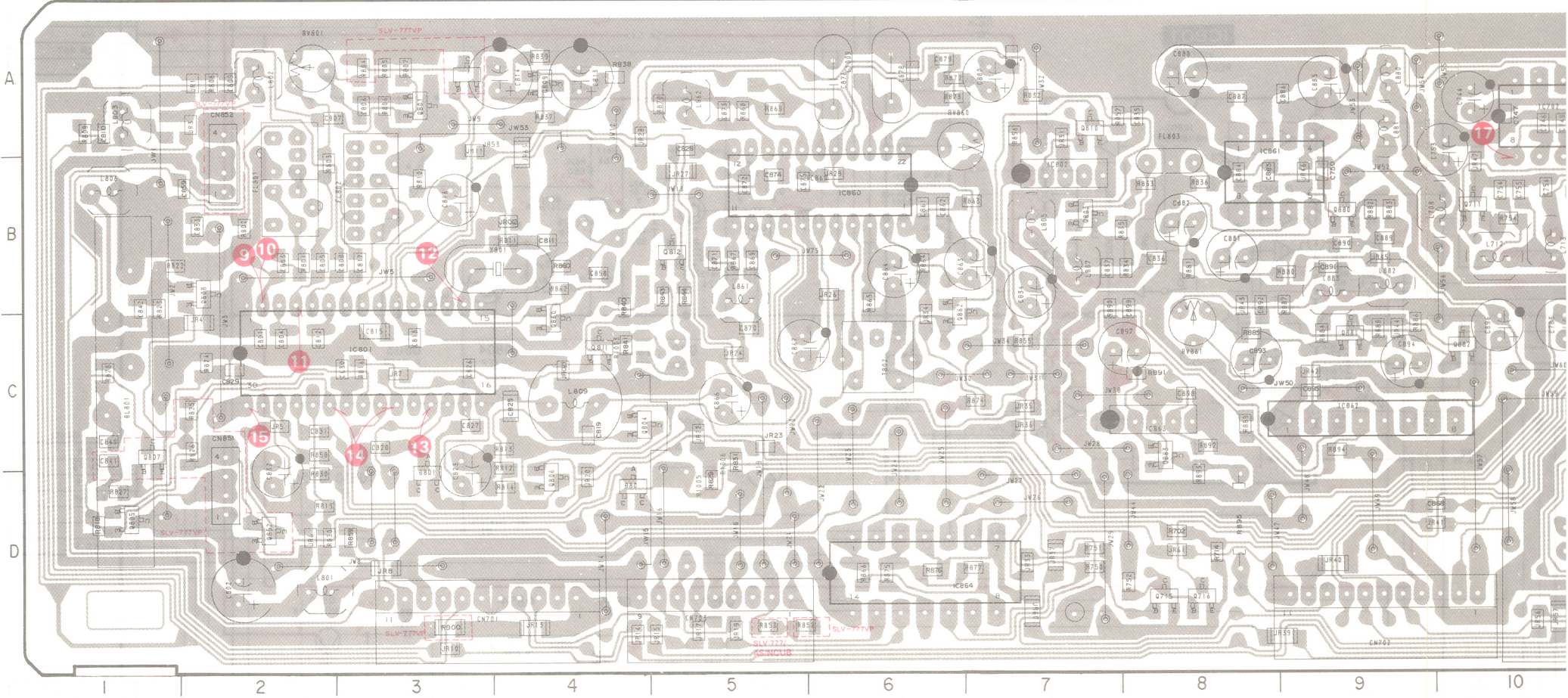
Q880	8-729-100-66	TRANSISTOR 2SC1623
Q881	8-729-100-66	TRANSISTOR 2SC1623
Q882	8-729-216-22	TRANSISTOR 2SA1162
Q883	8-729-100-66	TRANSISTOR 2SC1623

YC-65 BOARD	
D705	D-11
D801	D-3
D803	D-4

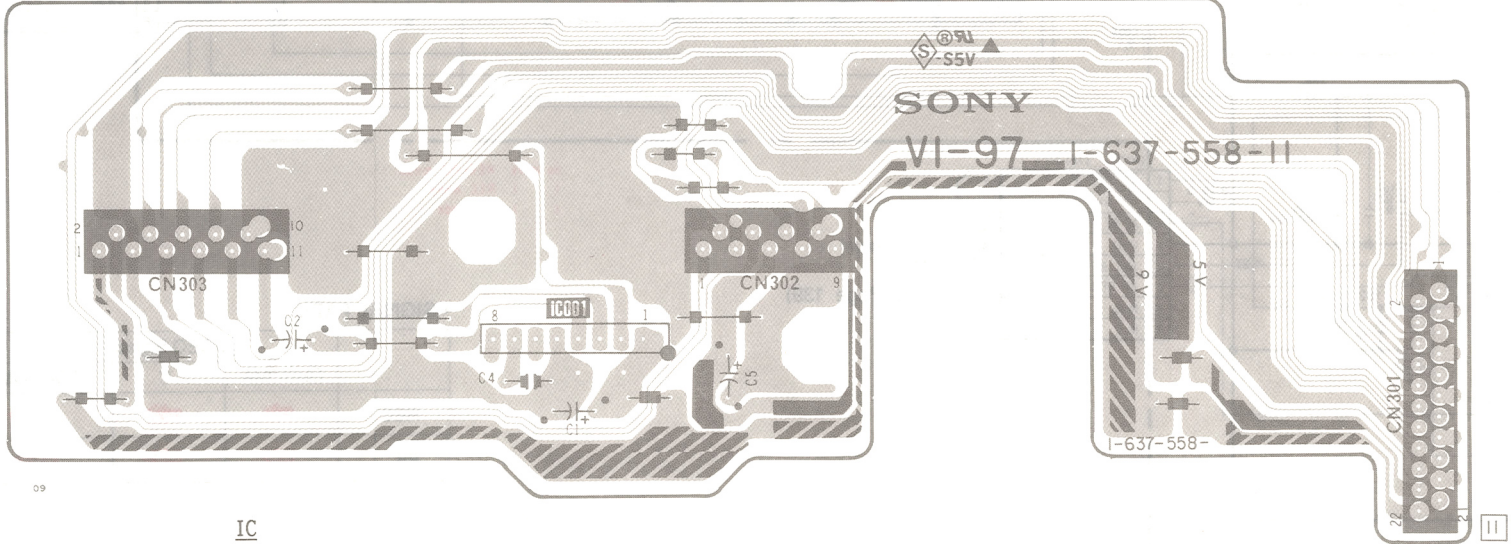
IC701	C-13
IC702	A-10
IC801	C-3
IC802	B-7
IC850	B-6
IC861	A-8
IC862	C-9
IC863	C-8
IC864	D-6

Q702	B-11
Q703	D-11
Q704	D-12
Q705	A-11
Q706	A-11
Q707	D-14
Q709	D-13
Q711	B-10
Q715	D-8
Q716	D-8
Q717	D-11
Q719	D-11
Q721	D-12
Q722	D-11
Q723	D-12
Q801	A-3
Q802	A-3
Q803	B-2
Q804	C-4
Q805	D-1
Q806	D-4
Q807	C-1
Q808	B-2
Q809	A-4
Q810	A-7
Q811	C-4
Q812	B-5
Q852	D-2
Q860	B-4
Q862	B-6
Q880	B-9
Q881	C-9
Q882	C-10
Q883	C-8

YC-65 BOARD

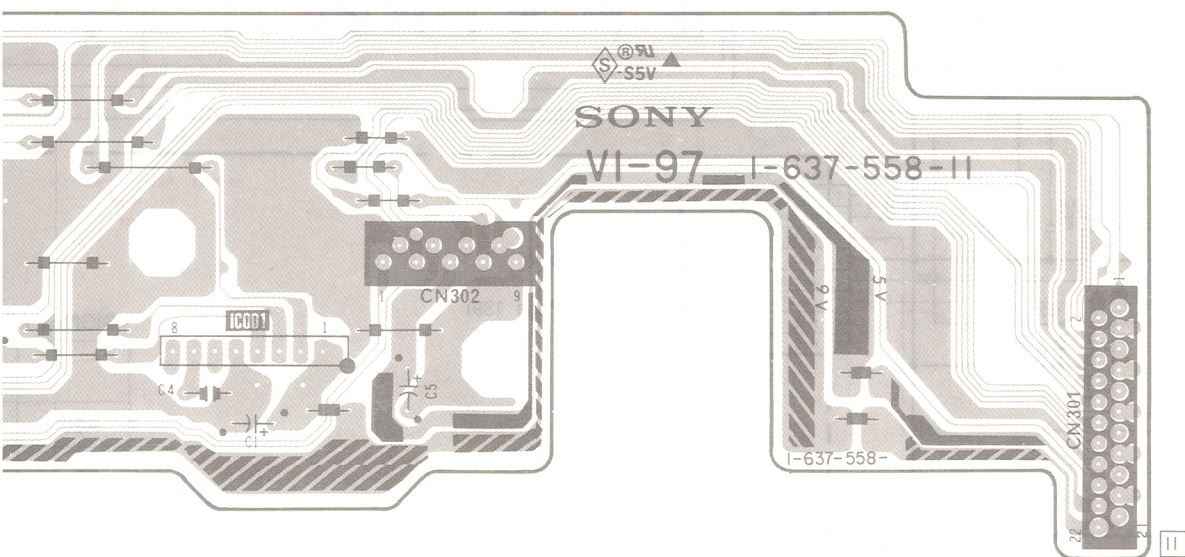
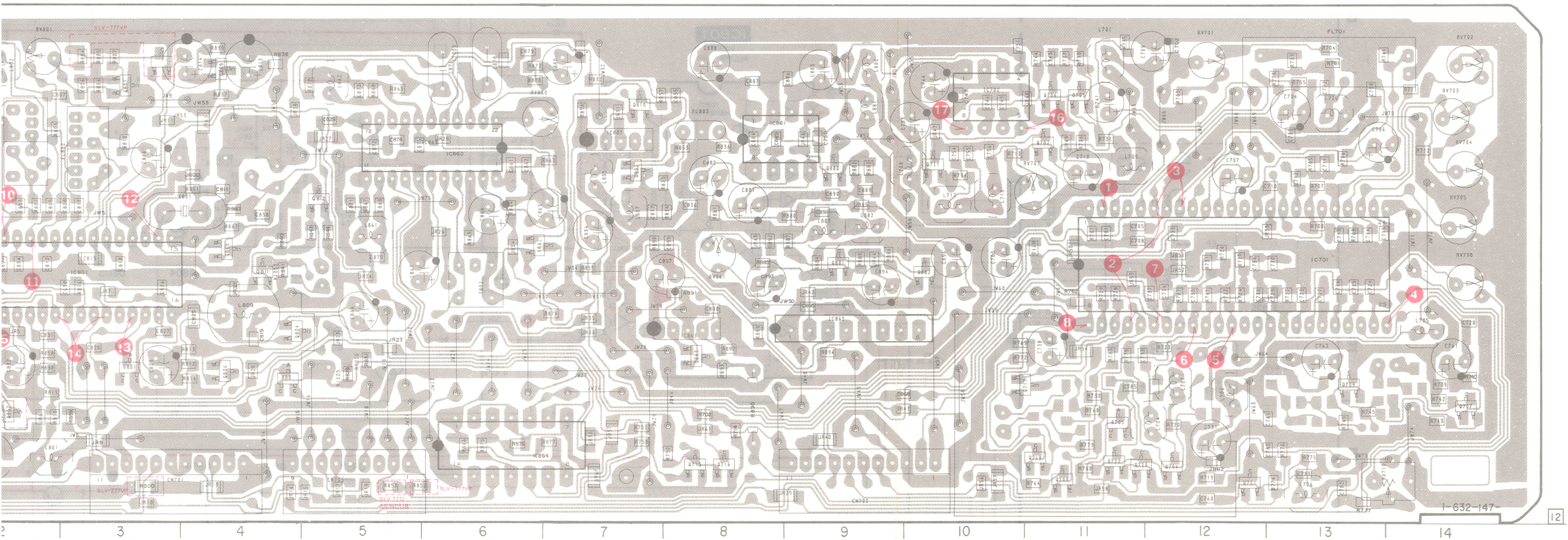


VI-97 BOARD

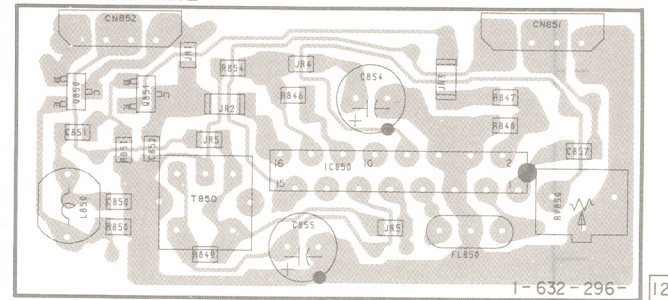


IC

IC001	8-759-800-81	IC LA7016
-------	--------------	-----------



SD-4 BOARD



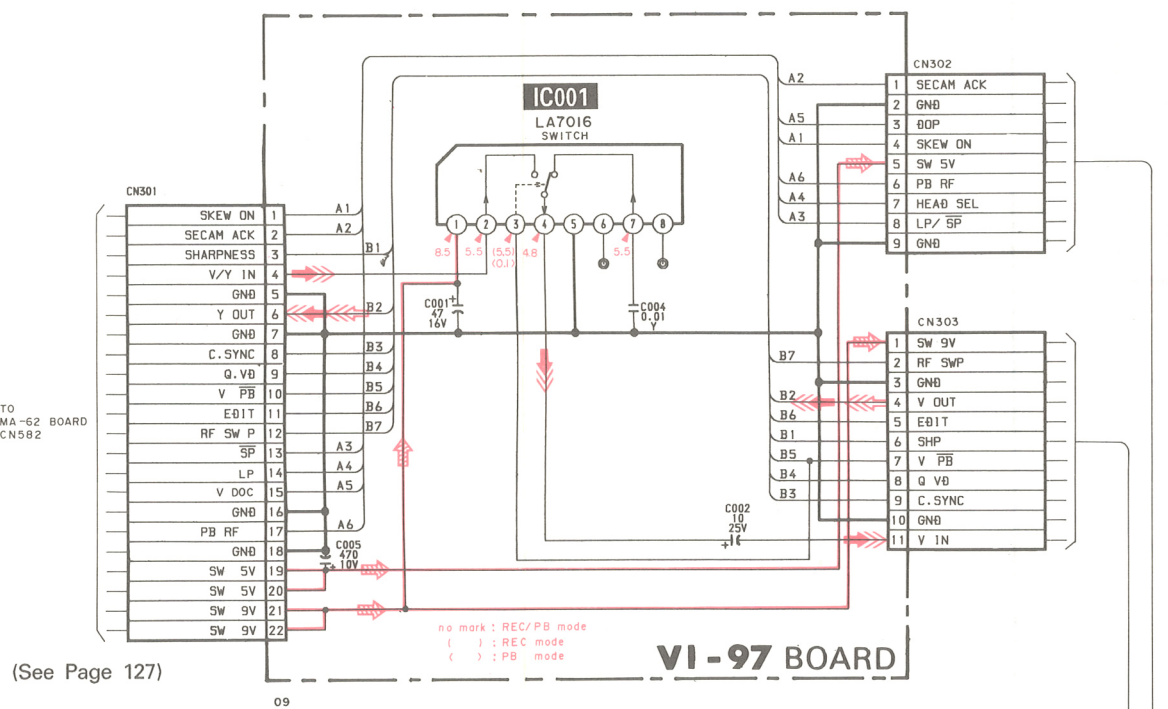
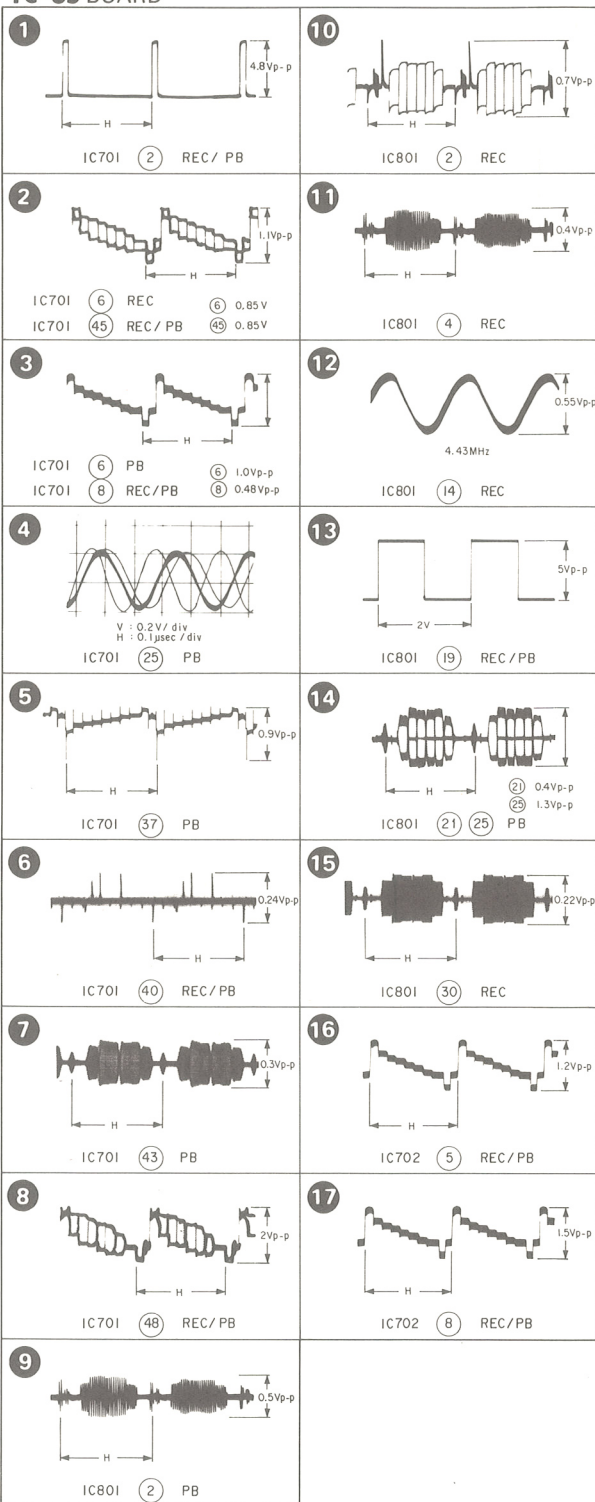
IC
IC850 8-759-904-95 IC BA7077

TRANSISTOR
Q850 8-729-102-62 TRANSISTOR 2SC1623
Q850 8-729-901-81 TRANSISTOR 2SC2412K
Q851 8-729-102-62 TRANSISTOR 2SC1623
Q851 8-729-901-81 TRANSISTOR 2SC2412K

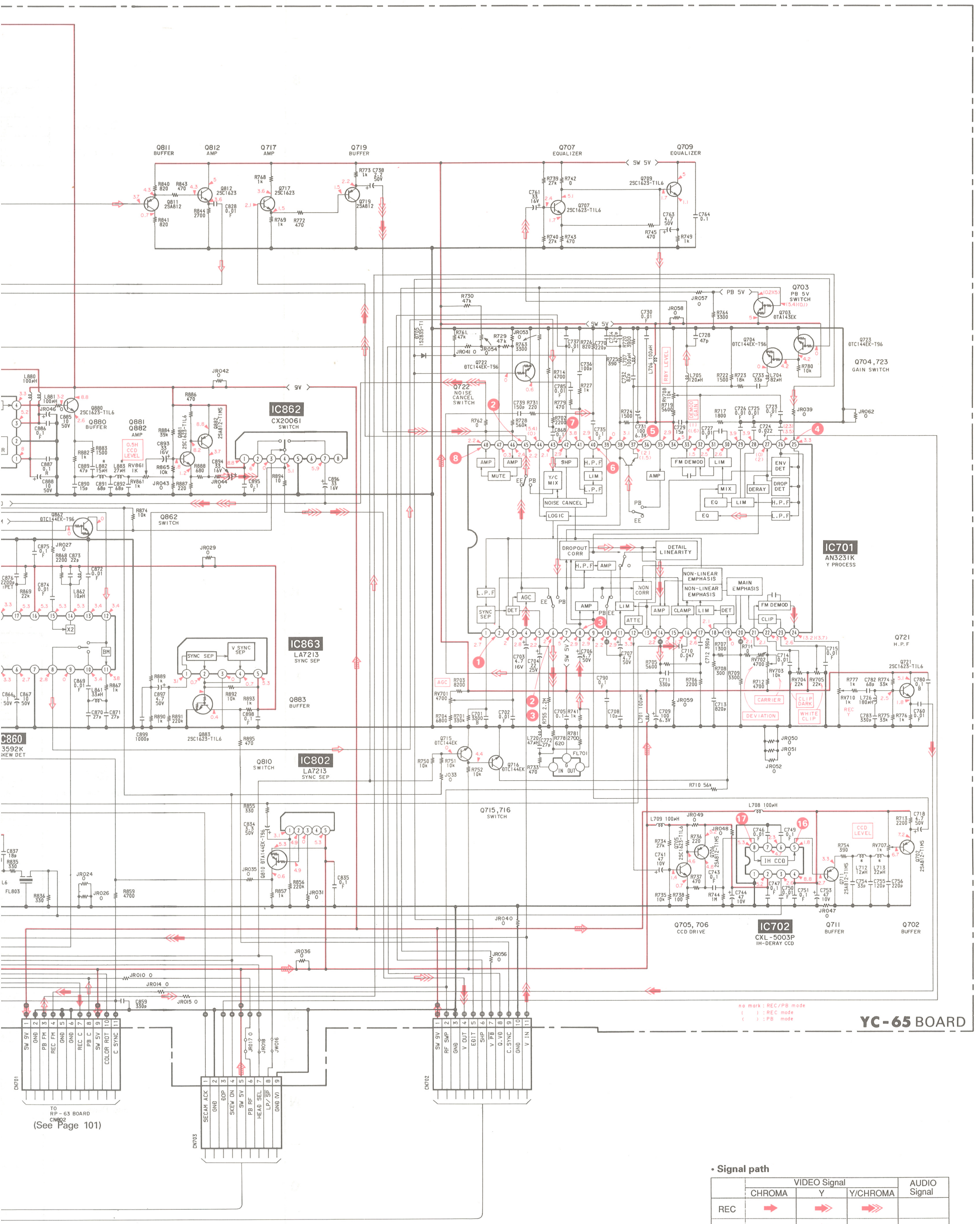
— Ref. No. YC-65 BOARD: 4000 series, VI-97 BOARD: 6000 series, SD-4 BOARD: 9000 series —

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

YC-65 BOARD







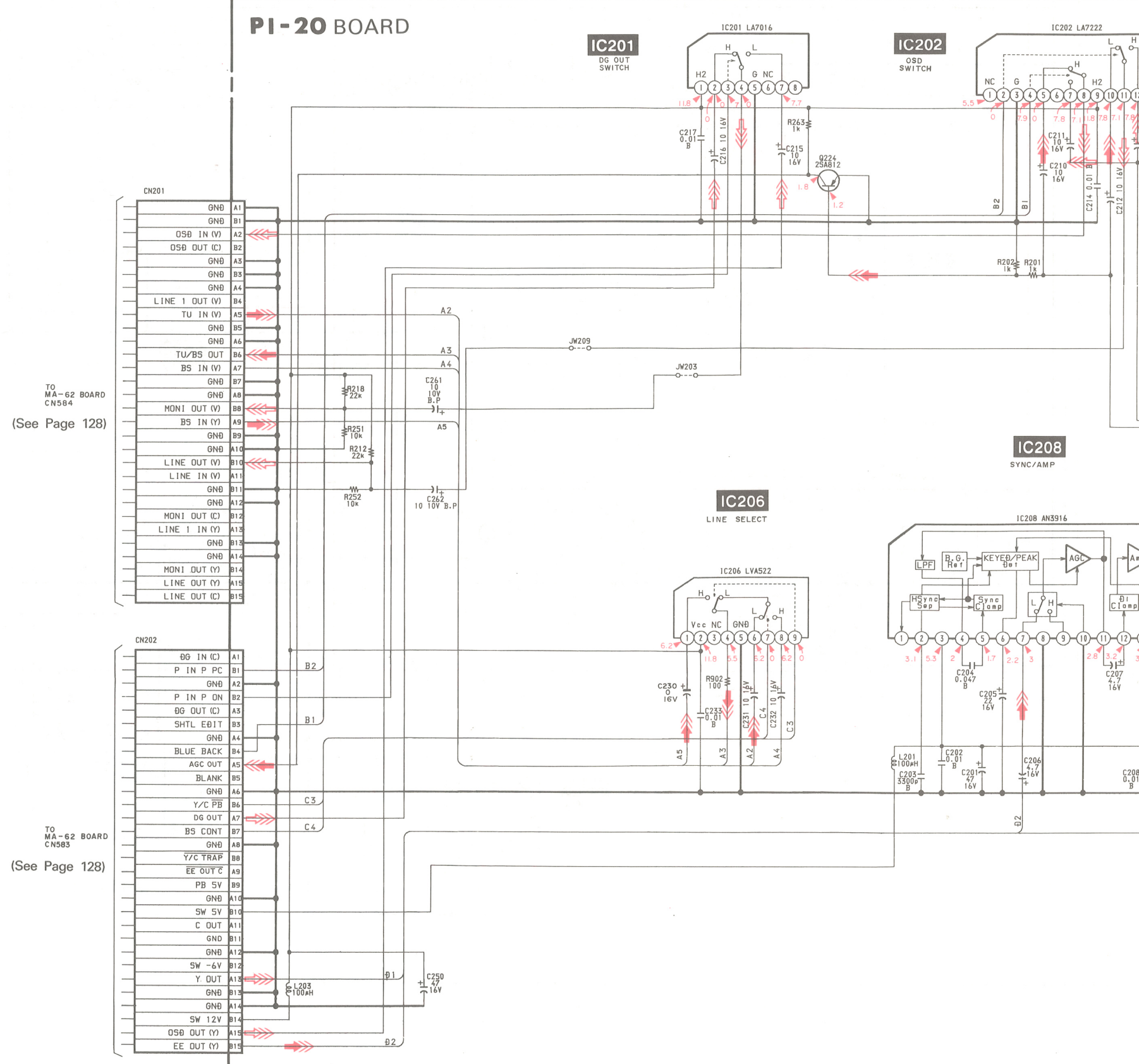
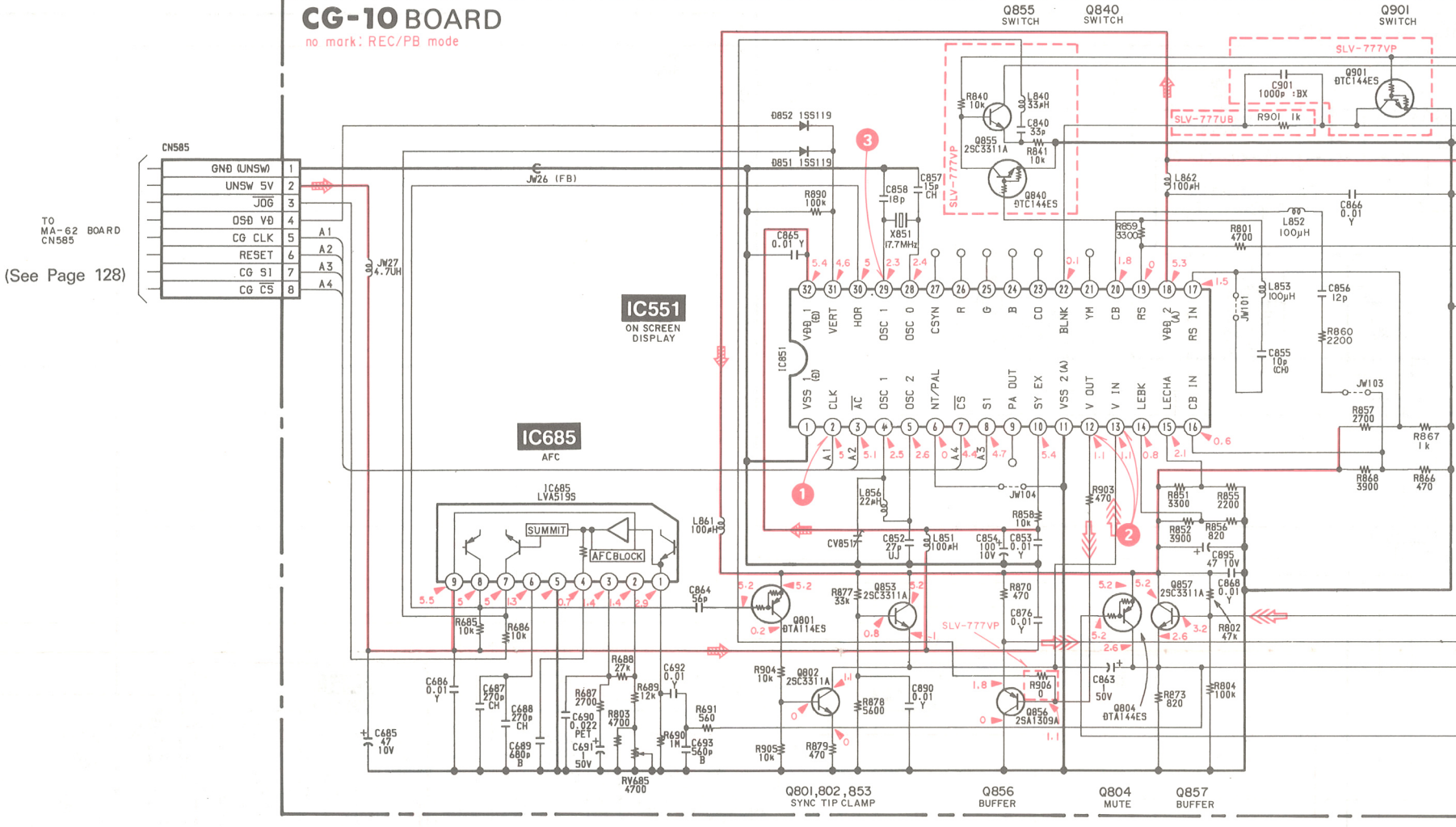
YC-65 BOARD

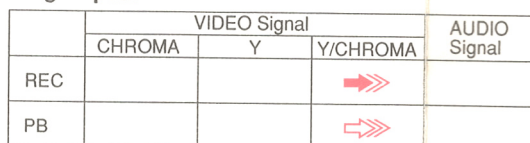
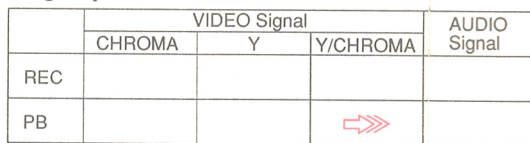
• Signal path

	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC	→	→	→	
PB	→	→	→	

— Ref. No. PI-20 BOARD: 4000 series, CG-10 BOARD: 5000 series —

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P



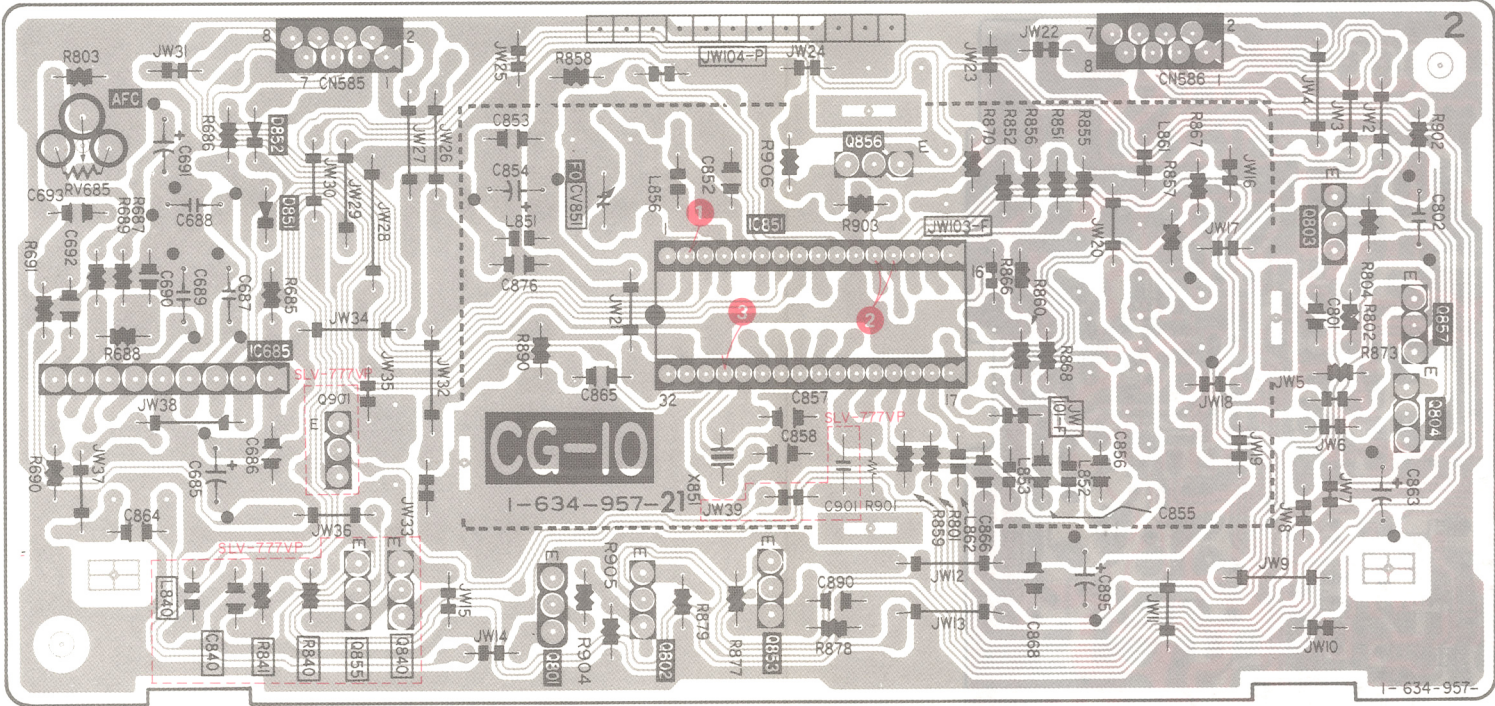


VIDEO

PI-20 (VIDEO SIGNAL SELECTOR), CG-10 (ON SCREEN DISPLAY CONTROLLER) PRINTED WIRING BOARDS

— Ref. No. PI-20 BOARD: 4000 series, CG-10 BOARD: 5000 series —

CG-10 BOARD



09

DIODE

D851	8-719-911-19	DIODE 1SS119
D852	8-719-911-19	DIODE 1SS119

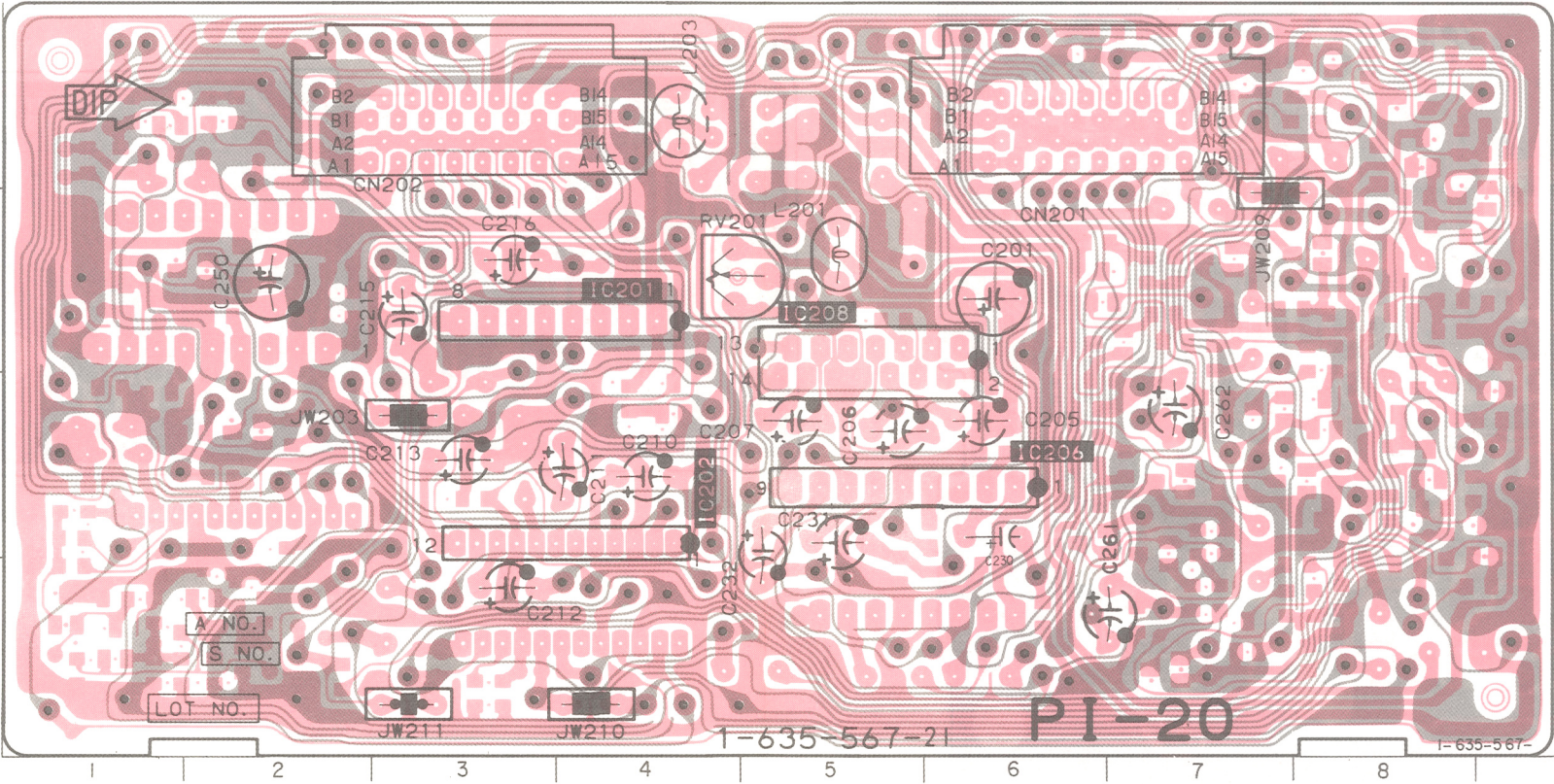
IC

IC685	8-759-996-03	IC LVA519S
IC851	8-759-634-22	IC M50554-182SP

TRANSISTOR

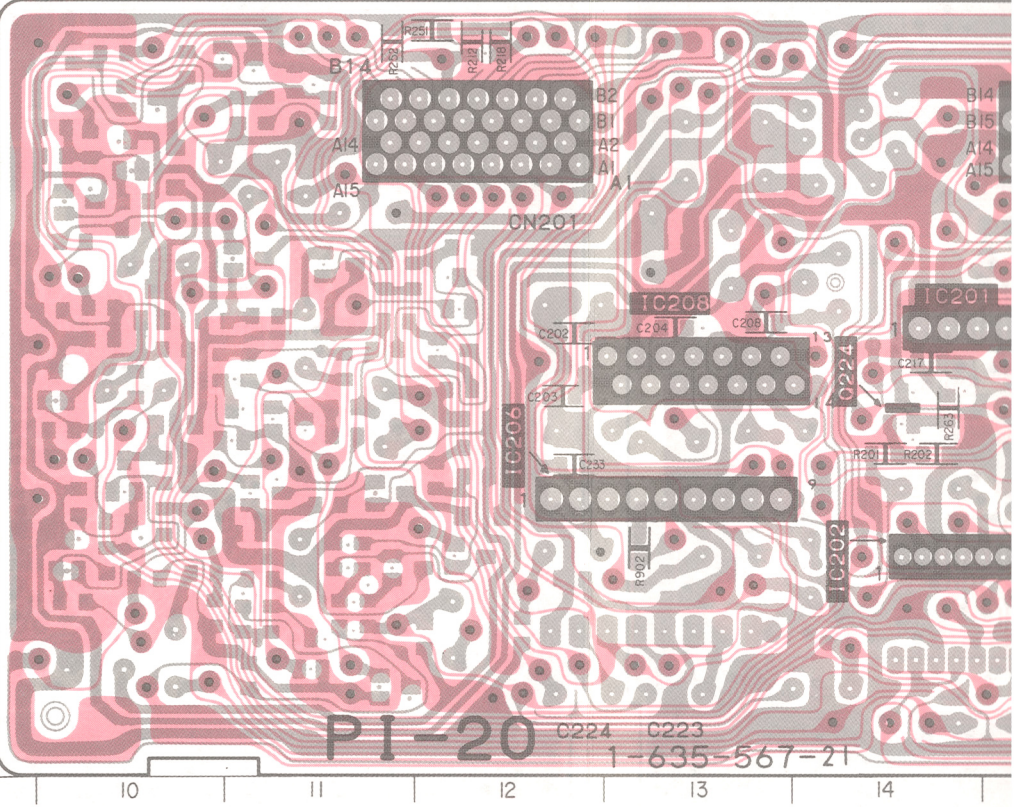
Q801	8-729-900-61	TRANSISTOR DTA114ES
Q802	8-729-423-37	TRANSISTOR 2SA3311A-QRS
Q803	8-729-900-89	TRANSISTOR DTC144ES
Q804	8-729-900-65	TRANSISTOR DTA144ES
Q840	8-729-900-61	TRANSISTOR DTA114ES (SLV-777VP)
Q853	8-729-423-37	TRANSISTOR 2SA3311A-QRS
Q855	8-729-423-37	TRANSISTOR 2SA3311A-QRS (SLV-777VP)
Q856	8-729-423-44	TRANSISTOR 2SA1309A-QRS
Q857	8-729-423-37	TRANSISTOR 2SA3311A-QRS
Q901	8-729-900-89	TRANSISTOR DTC144ES (SLV-777VP)

PI-20 BOARD (COMPONENT SIDE)



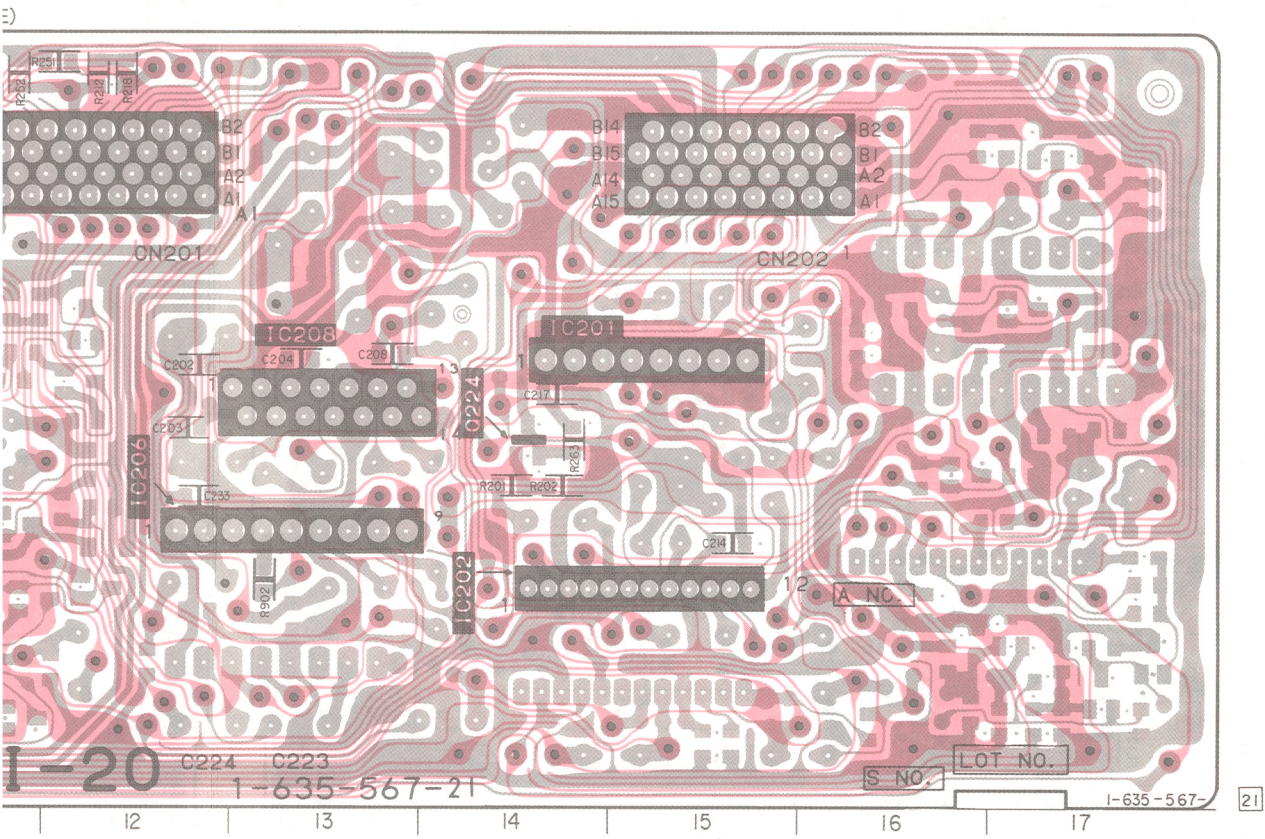
09

PI-20 BOARD (CONDUCTOR SIDE)



09

YRS
(SLV-777VP)
YRS
YRS (SLV-777VP)
YRS
YRS (SLV-777VP)



IC

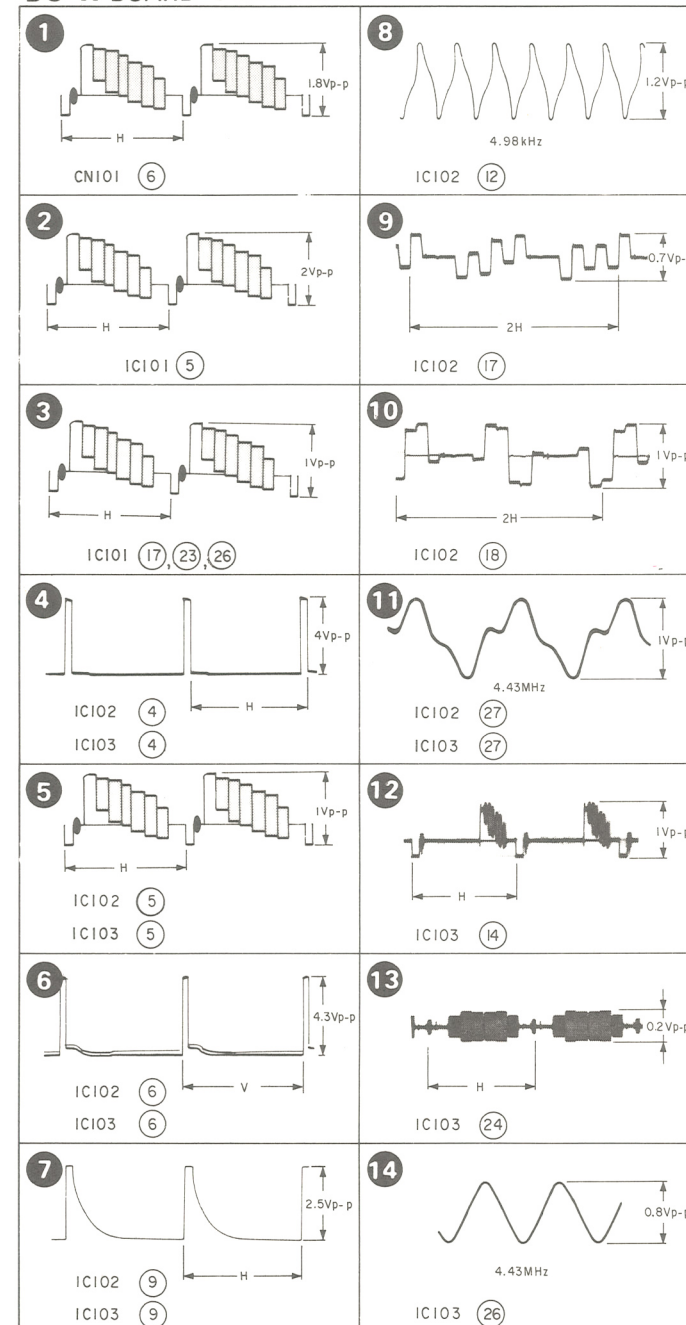
IC201	8-759-800-81	IC LA7016
IC202	8-759-822-60	IC LA7222
IC206	8-759-501-20	IC LVA522S
IC208	8-759-420-62	IC AN3916

TRANSISTOR

Q224	8-729-216-22	TRANSISTOR 2SA1162
------	--------------	--------------------

116

DG-11 BOARD E-E mode (PIN P)



DIODE

D101	8-719-400-18	DIODE MA152WK
D105	8-719-400-18	DIODE MA152WK
D106	8-719-400-18	DIODE MA152WK
D109	8-719-400-18	DIODE MA152WK

IC

IC101	8-759-322-29	IC HA118088MPER
IC102	8-759-323-11	IC HA11567MP
IC103	8-759-322-34	IC HA11535MP
IC104	8-759-322-68	IC HD49410
IC105	8-759-322-51	IC HM53461ZP-12

IC108	8-759-008-74	IC MC14001BF
IC108	8-759-323-24	IC HD14001BFP-T1

TRANSISTOR

Q101	8-729-305-25	TRANSISTOR 2SA1052-C
Q102	8-729-305-25	TRANSISTOR 2SA1052-C
Q103	8-729-305-25	TRANSISTOR 2SA1052-C
Q108	8-729-305-25	TRANSISTOR 2SA1052-C
Q109	8-729-305-25	TRANSISTOR 2SA1052-C

Q110	8-729-305-25	TRANSISTOR 2SA1052-C
Q112	8-729-901-00	TRANSISTOR DTC124EK
Q113	8-729-305-25	TRANSISTOR 2SA1052-C
Q114	8-729-271-22	TRANSISTOR 2SC2712-G
Q116	8-729-305-25	TRANSISTOR 2SA1052-C

Q117	8-729-271-22	TRANSISTOR 2SC2712-G
Q118	8-729-305-25	TRANSISTOR 2SA1052-C
Q120	8-729-901-00	TRANSISTOR DTC124EK
Q121	8-729-305-25	TRANSISTOR 2SA1052-C
Q122	8-729-271-22	TRANSISTOR 2SC2712-G

Q123	8-729-901-00	TRANSISTOR DTC124EK
Q125	8-729-903-82	TRANSISTOR FMW2
Q126	8-729-901-01	TRANSISTOR DTC144EK
Q127	8-729-271-22	TRANSISTOR 2SC2712-G

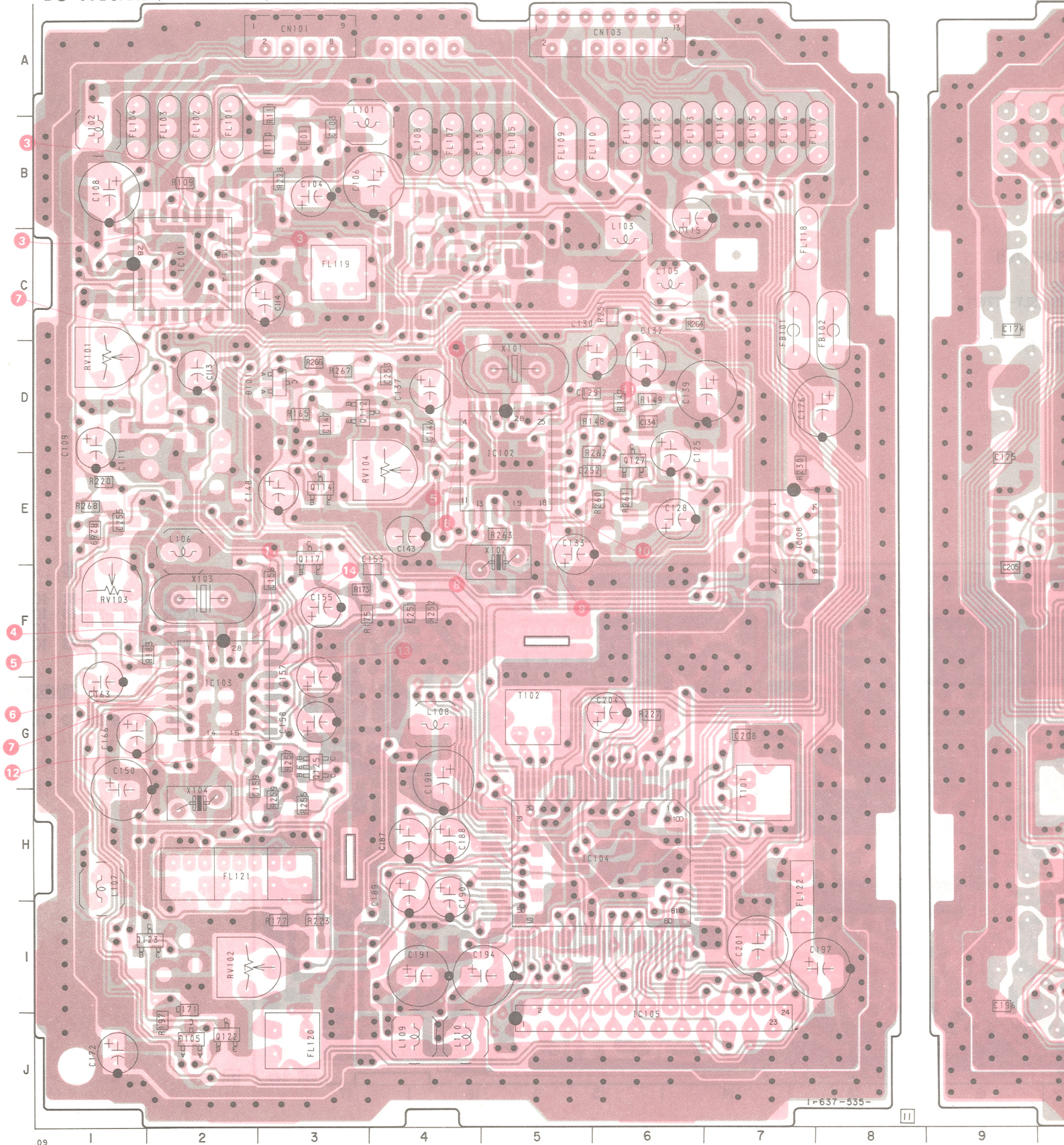
DG-11 BOARD

D101	D-3
D105	J-2
D106	D-14
D109	G-14

IC101	C-2
IC102	E-5
IC103	G-2
IC104	H-5
IC105	E-7
IC108	E-7

Q101	C-14
Q102	A-14
Q103	A-15
Q108	D-14
Q109	D-11
Q110	E-11
Q112	D-3
Q113	D-14
Q114	E-3
Q116	E-16
Q117	E-3
Q118	F-16
Q120	I-15
Q121	I-15
Q122	J-2
Q123	I-2
Q125	G-3
Q126	H-14
Q127	E-6

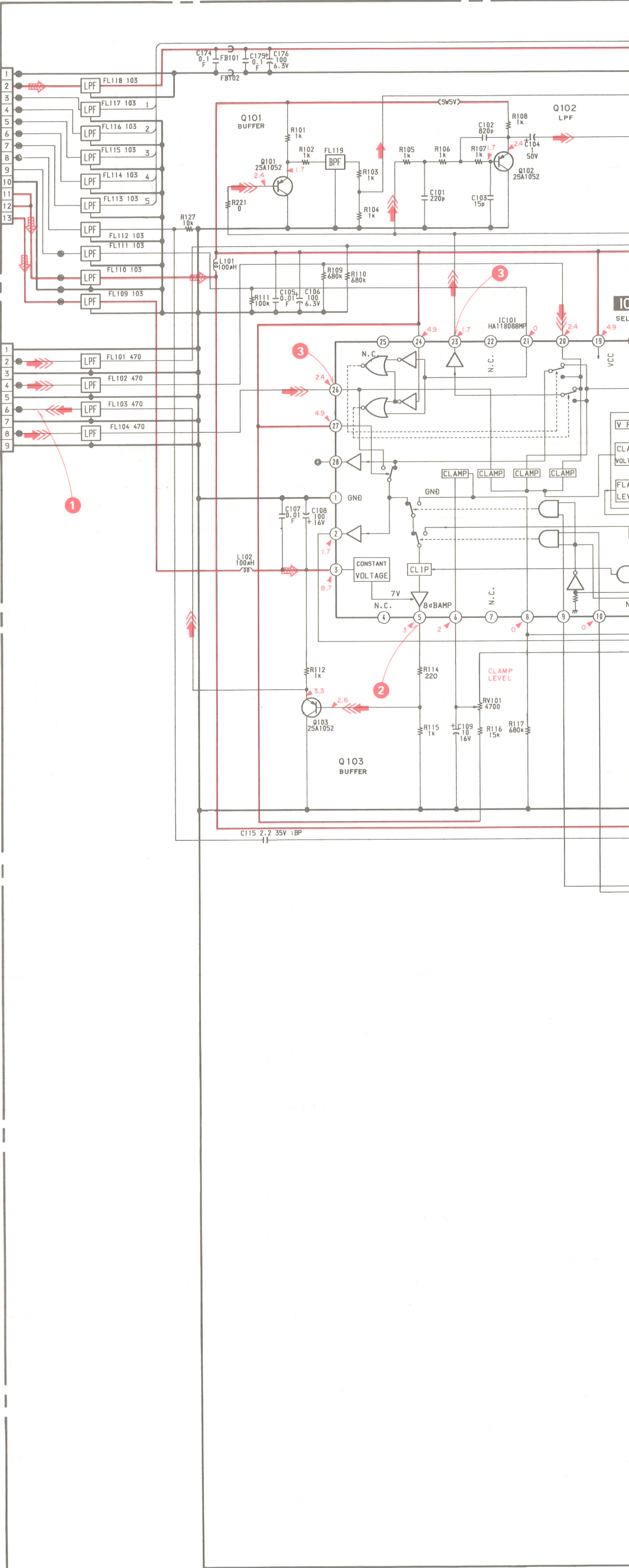
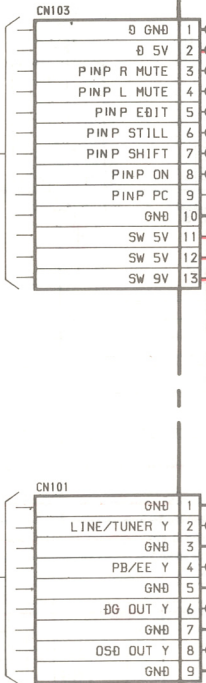
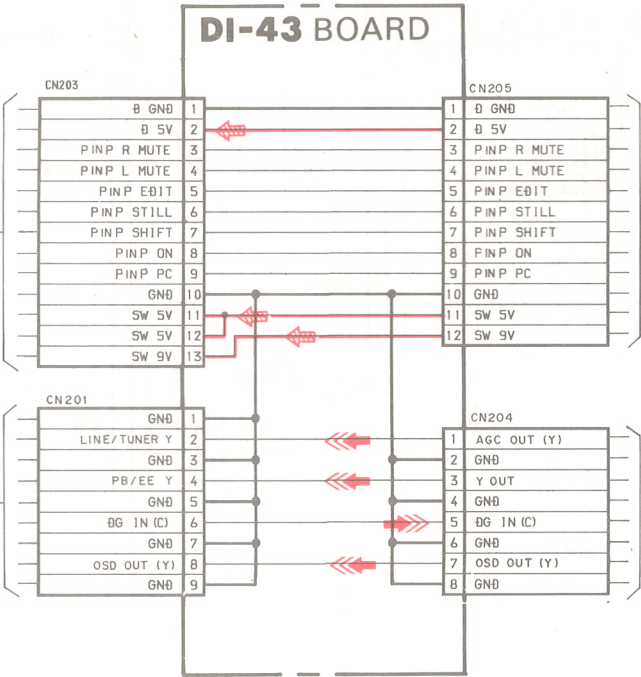
DG-11 BOARD (COMPONENT SIDE)



9 10 11 12 13 14 15 16

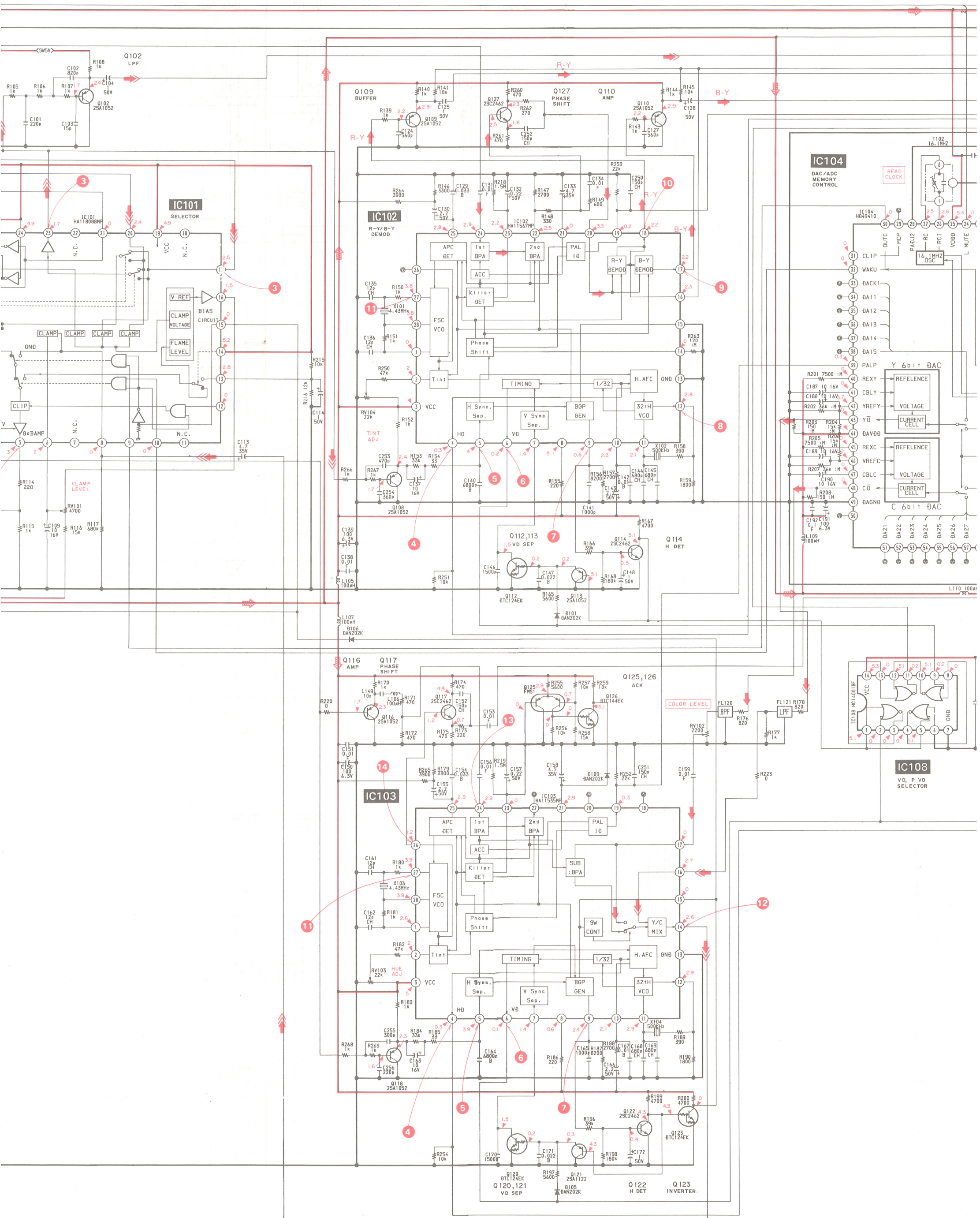
I-637-535-

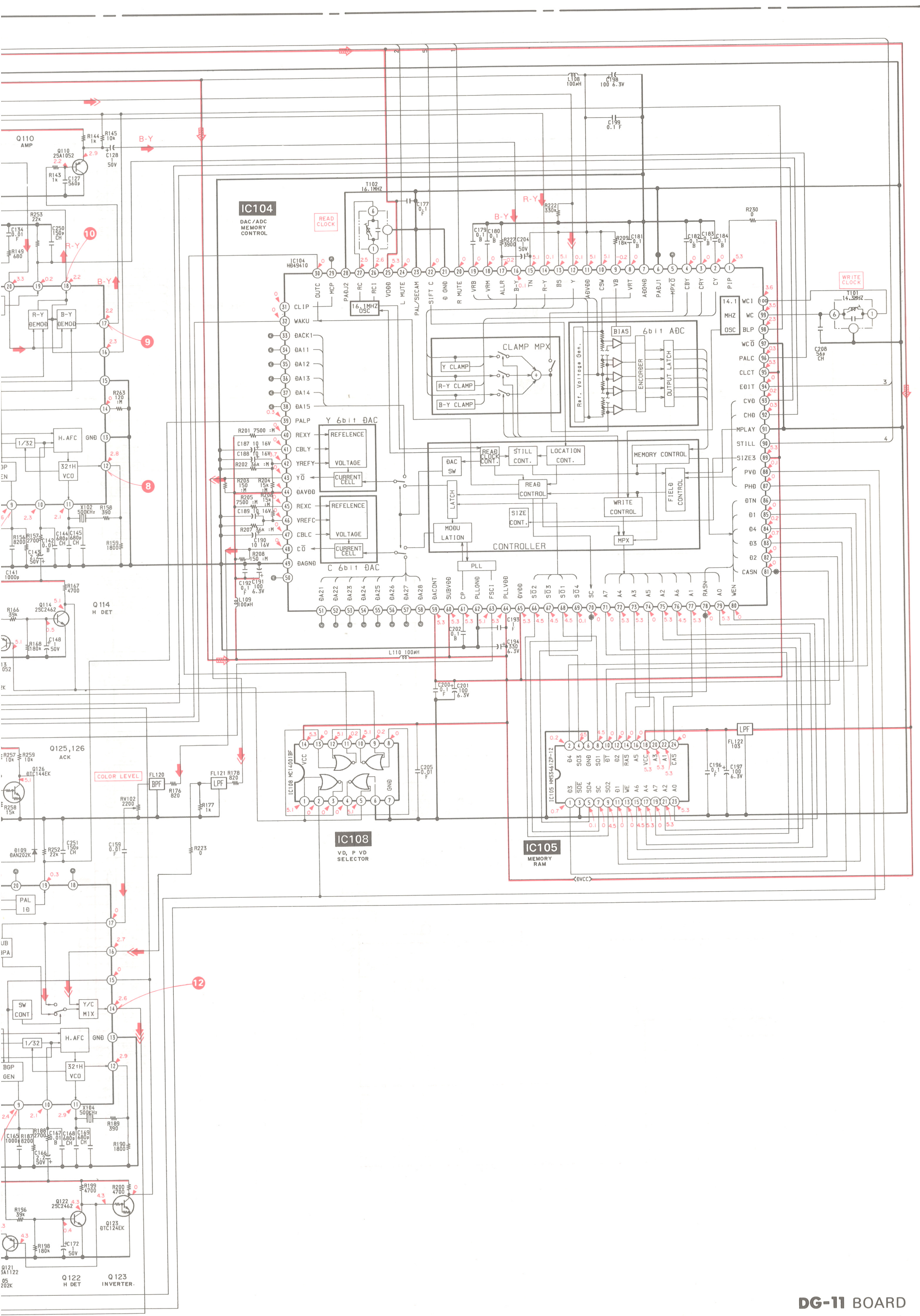
— Ref. No. DG-11 BOARD: 5000 series, DI-43 BOARD: 8000 series —



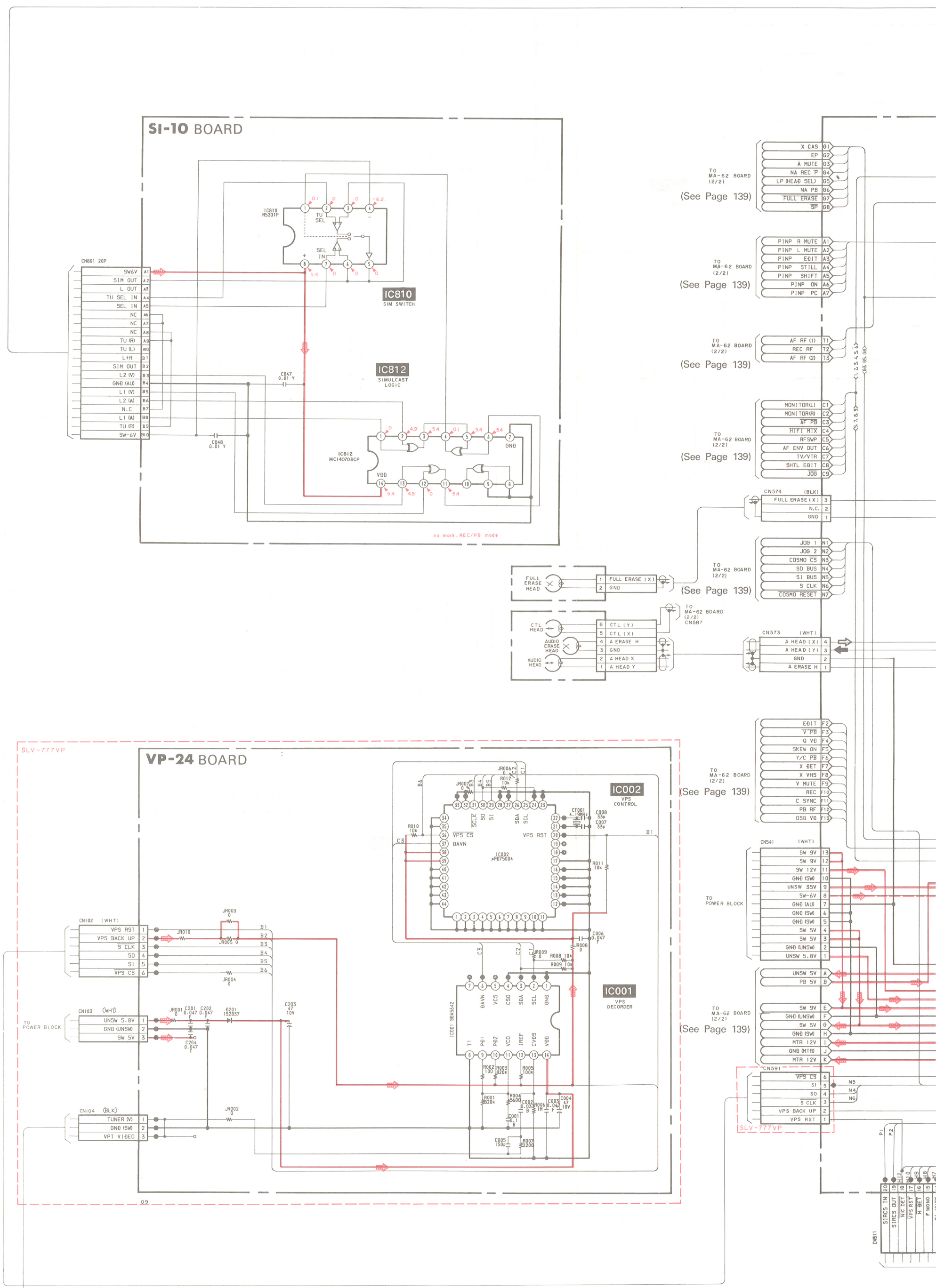
• Signal path

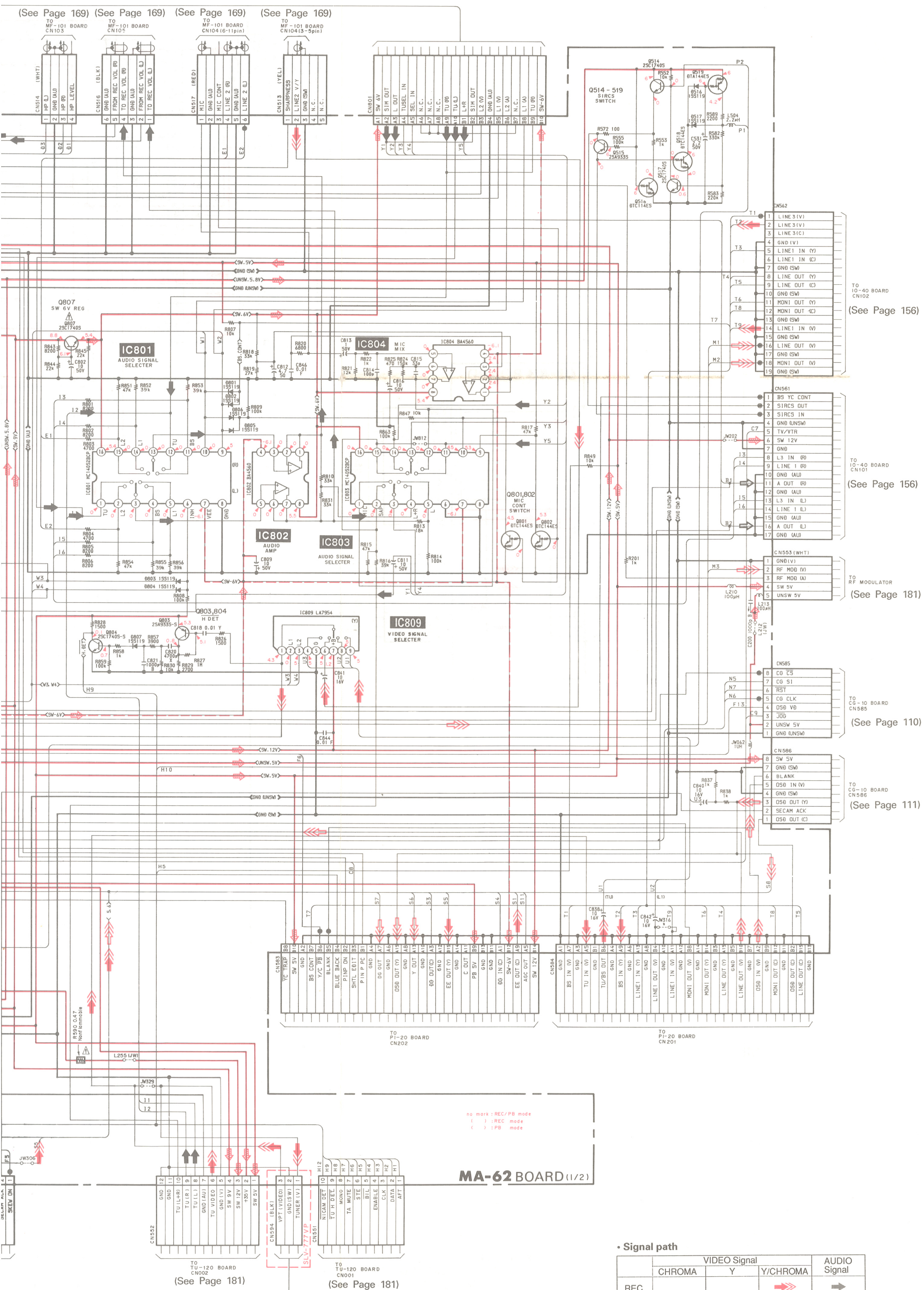
	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC	→	→	→	
PB				





— Ref. No. SI-10 BOARD: 3000 series, MA-62 BOARD: 7000 series, VP-24 BOARD: 10000 series —





DIODE

D401	8-719-911-19	DIODE	1SS119
D402	8-719-911-19	DIODE	1SS119
D403	8-719-911-19	DIODE	1SS119
D404	8-719-911-19	DIODE	1SS119
D409	8-719-101-50	DIODE	RD5. 1E-L2
D410	8-719-911-19	DIODE	1SS119
D501	8-719-913-44	DIODE	ERA82-004
D502	8-719-911-19	DIODE	1SS119
D505	8-719-911-19	DIODE	1SS119
D508	8-719-101-47	DIODE	RD4. 7E-L2
D516	8-719-911-19	DIODE	1SS119
D517	8-719-911-19	DIODE	1SS119
D518	8-719-200-82	DIODE	11ES2
D519	8-719-109-93	DIODE	RD6. 2ES-B2
D703	8-719-911-19	DIODE	1SS119
D704	8-719-911-19	DIODE	1SS119
D801	8-719-911-19	DIODE	1SS119
D802	8-719-911-19	DIODE	1SS119
D803	8-719-911-19	DIODE	1SS119
D804	8-719-911-19	DIODE	1SS119
D805	8-719-911-19	DIODE	1SS119
D806	8-719-911-19	DIODE	1SS119
D807	8-719-911-19	DIODE	1SS119
D999	8-719-911-19	DIODE	1SS119TG

IC

IC251	8-759-805-20	IC	LA7297
IC401	8-759-000-49	IC	MC14066BCP
IC402	8-759-632-58	IC	M52435P
IC403	8-759-008-70	IC	LM358N
IC404	8-759-981-85	IC	RC4556D
IC406	8-759-008-71	IC	LM324N
IC501	8-752-815-90	IC	XP80624-009Q
IC502	8-759-983-45	IC	BA6238A
IC503	8-759-035-36	IC	MC68HC05P7
IC801	8-759-152-34	IC	TC4052BPHB
IC802	8-759-923-90	IC	BA4560
IC803	8-759-208-08	IC	TC4052BPHB
IC804	8-759-923-90	IC	BA4560
IC809	8-759-822-71	IC	LA7954

TRANSISTOR

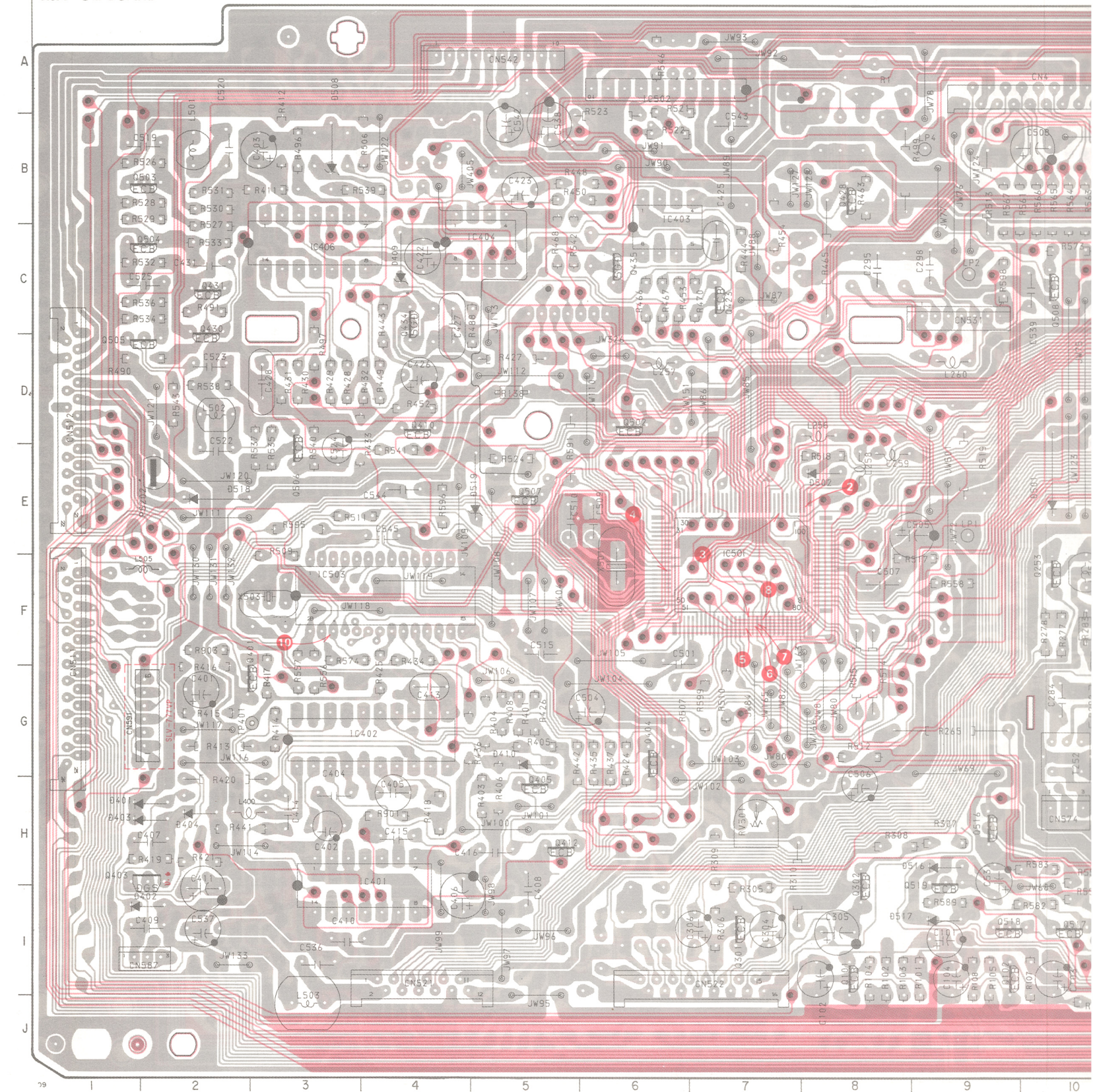
Q101	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q102	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q203	8-729-920-68	TRANSISTOR	2SA933S-QR
Q204	8-729-920-68	TRANSISTOR	2SA933S-QR
Q251	8-729-102-14	TRANSISTOR	2SD1021
Q253	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q254	8-729-140-96	TRANSISTOR	2SD774-34
Q301	8-729-920-68	TRANSISTOR	2SA933S-QR
Q302	8-729-920-68	TRANSISTOR	2SA933S-QR
Q401	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q403	8-729-115-10	TRANSISTOR	2SK105A-10
Q404	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q405	8-729-900-89	TRANSISTOR	DTC144ES
Q410	8-729-900-65	TRANSISTOR	DTA144ES
Q412	8-729-900-89	TRANSISTOR	DTC144ES
Q423	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q428	8-729-920-68	TRANSISTOR	2SA933S-QR
Q430	8-729-900-89	TRANSISTOR	DTC144ES
Q431	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q434	8-729-601-47	TRANSISTOR	2SK381-B

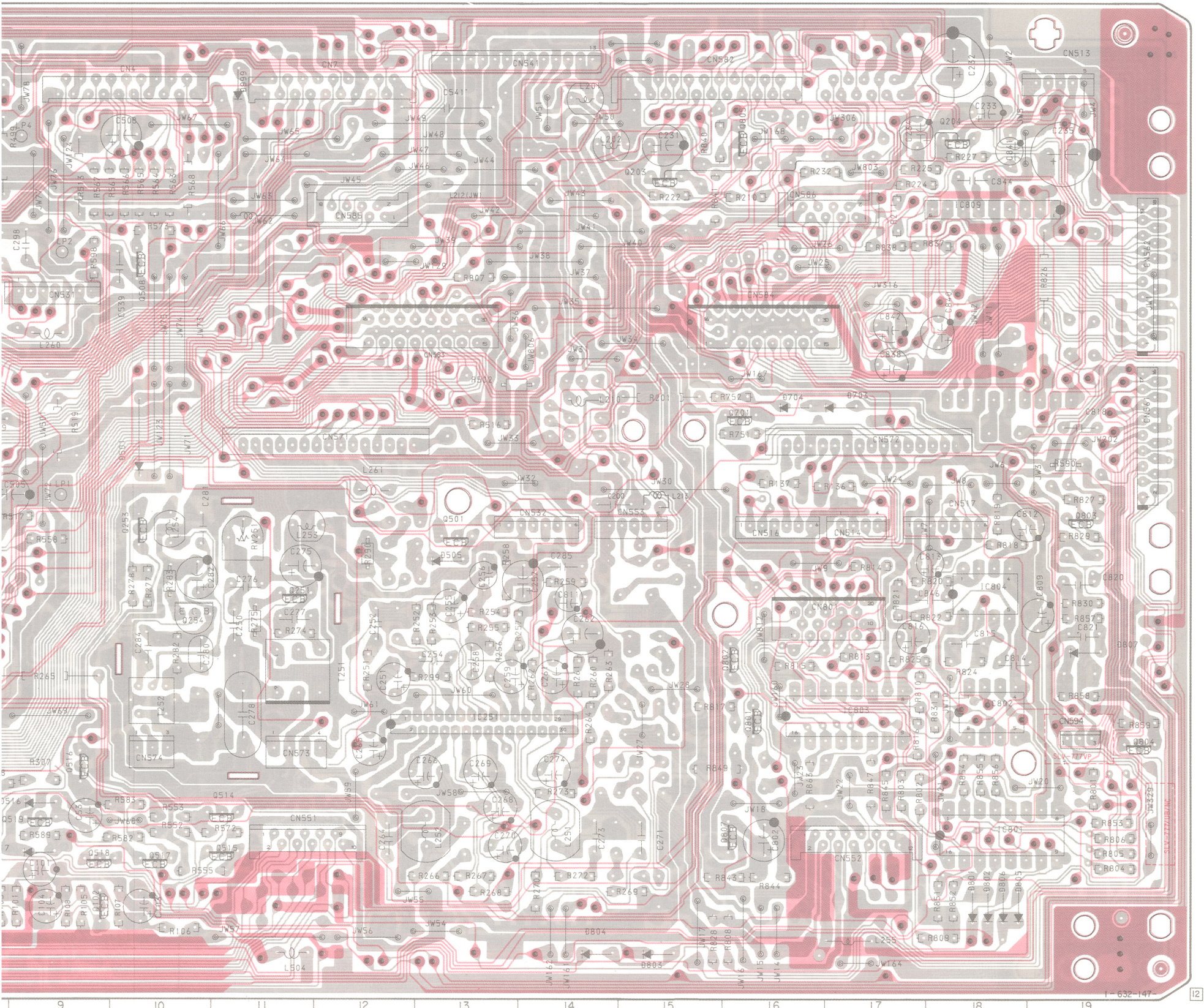
Q435	8-729-601-47	TRANSISTOR	2SK381-B
Q501	8-729-900-61	TRANSISTOR	DTA114ES
Q502	8-729-900-61	TRANSISTOR	DTA114ES
Q503	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q504	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q505	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q506	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q507	8-729-900-61	TRANSISTOR	DTA114ES
Q508	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q514	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q515	8-729-920-68	TRANSISTOR	2SA933S-QR
Q516	8-729-900-80	TRANSISTOR	DTC114ES
Q517	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q518	8-729-900-89	TRANSISTOR	DTC144ES
Q519	8-729-900-65	TRANSISTOR	DTA144ES
Q701	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q801	8-729-900-89	TRANSISTOR	DTC144ES
Q802	8-729-900-89	TRANSISTOR	DTC144ES
Q803	8-729-920-68	TRANSISTOR	2SA933S-QR
Q804	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q805	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q807	8-729-920-70	TRANSISTOR	2SC1740S-QR

MA-62 BOARD

D401	H-1
D402	I-2
D403	H-1
D404	H-2
D409	C-4
D410	H-5
D501	E-10
D502	E-8
D505	F-13
D508	B-3
D516	I-9
D517	I-9
D518	E-2
D519	A-4
D703	E-17
D704	E-16
D801	I-18
D802	I-18
D803	G-15
D804	G-14
D805	I-18
D806	I-18
D807	I-19
D999	B-11
IC251	H-13
IC401	I-3
IC402	G-3
IC403	C-6
IC404	C-5
IC406	C-3
IC501	F-7
IC502	F-3
IC503	F-3
IC801	I-18
IC802	H-18
IC803	H-16
IC804	G-18
IC809	C-18
Q101	I-8
Q102	I-8
Q203	B-15
Q204	B-8
Q251	G-11
Q253	F-10
Q254	G-10
Q301	I-7
Q302	I-8
Q401	G-2
Q403	I-2
Q404	H-6
Q405	H-5
Q410	E-5
Q412	H-5
Q423	C-7
Q428	C-8
Q430	D-2
Q431	C-2
Q432	D-4
Q435	C-6
Q501	F-13
Q502	E-6
Q503	B-2
Q504	C-2
Q505	D-2
Q506	E-3
Q507	E-5
Q508	C-10
Q514	I-11
Q515	I-11
Q516	H-9
Q517	I-10
Q518	I-9
Q519	I-9
Q701	E-15
Q801	H-16
Q802	G-16
Q803	F-19
Q804	H-19
Q805	B-15
Q807	I-16

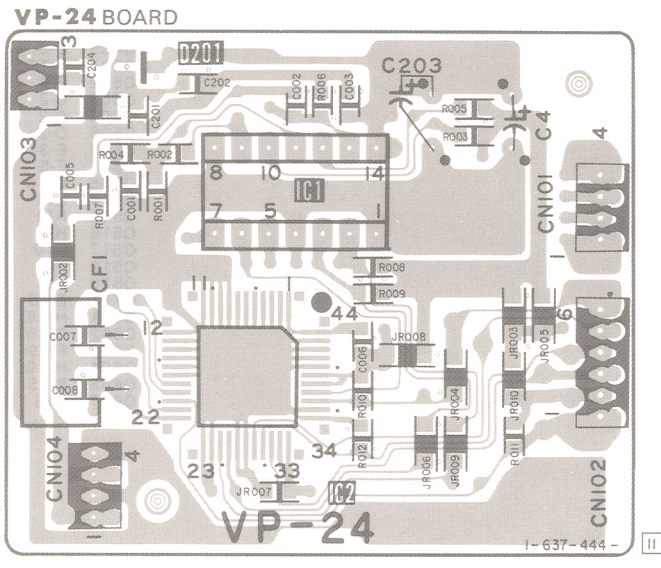
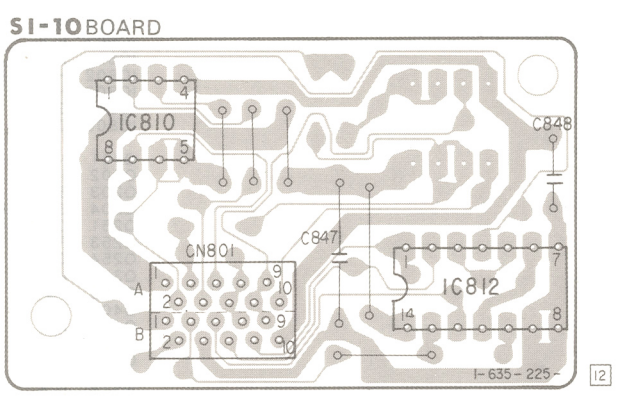
MA-62 BOARD





9 10 11 12 13 14 15 16 17 18 19

IC
IC810 8-759-602-49 IC M5201P
IC812 8-759-040-70 IC MC14070BCP

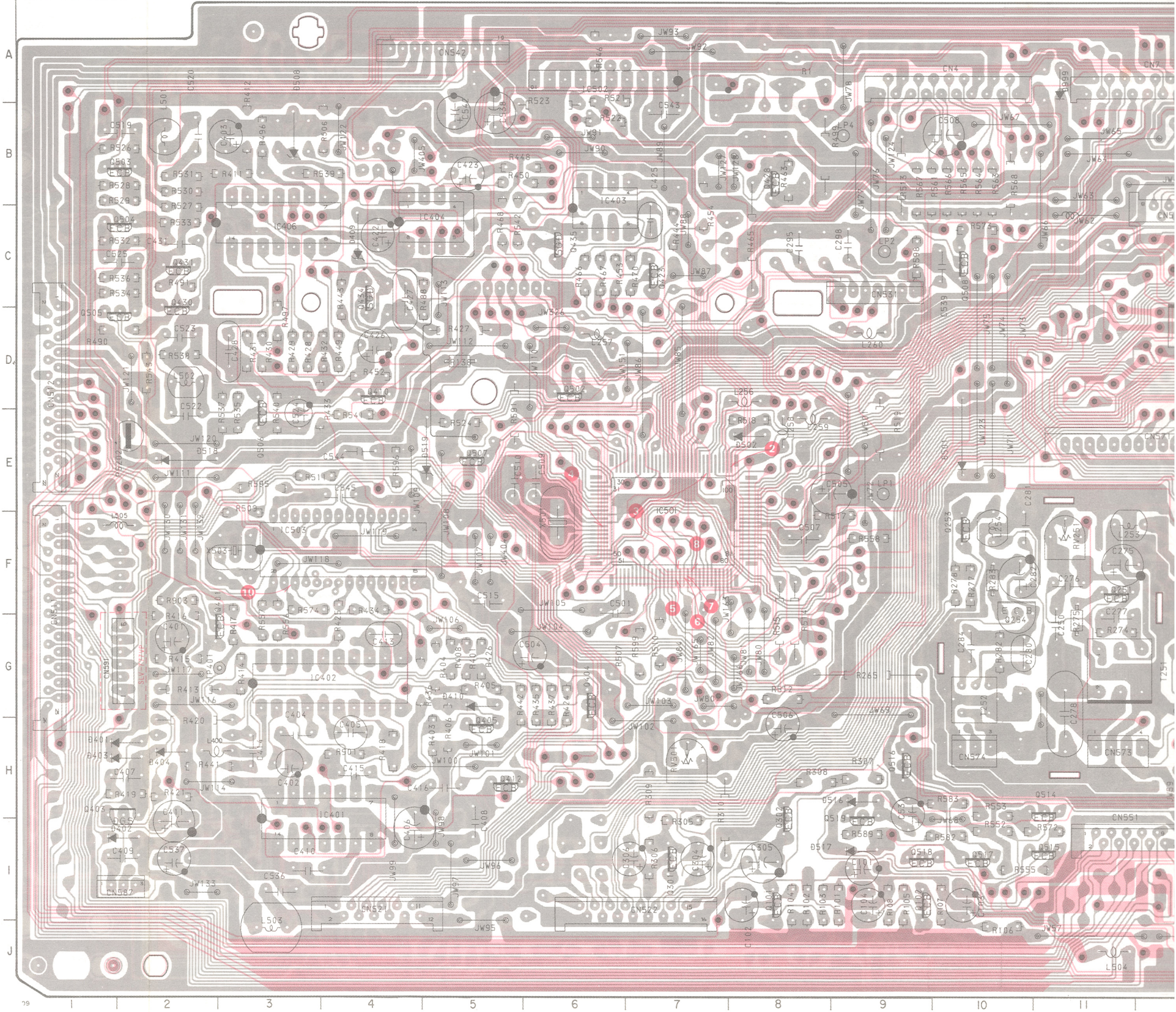


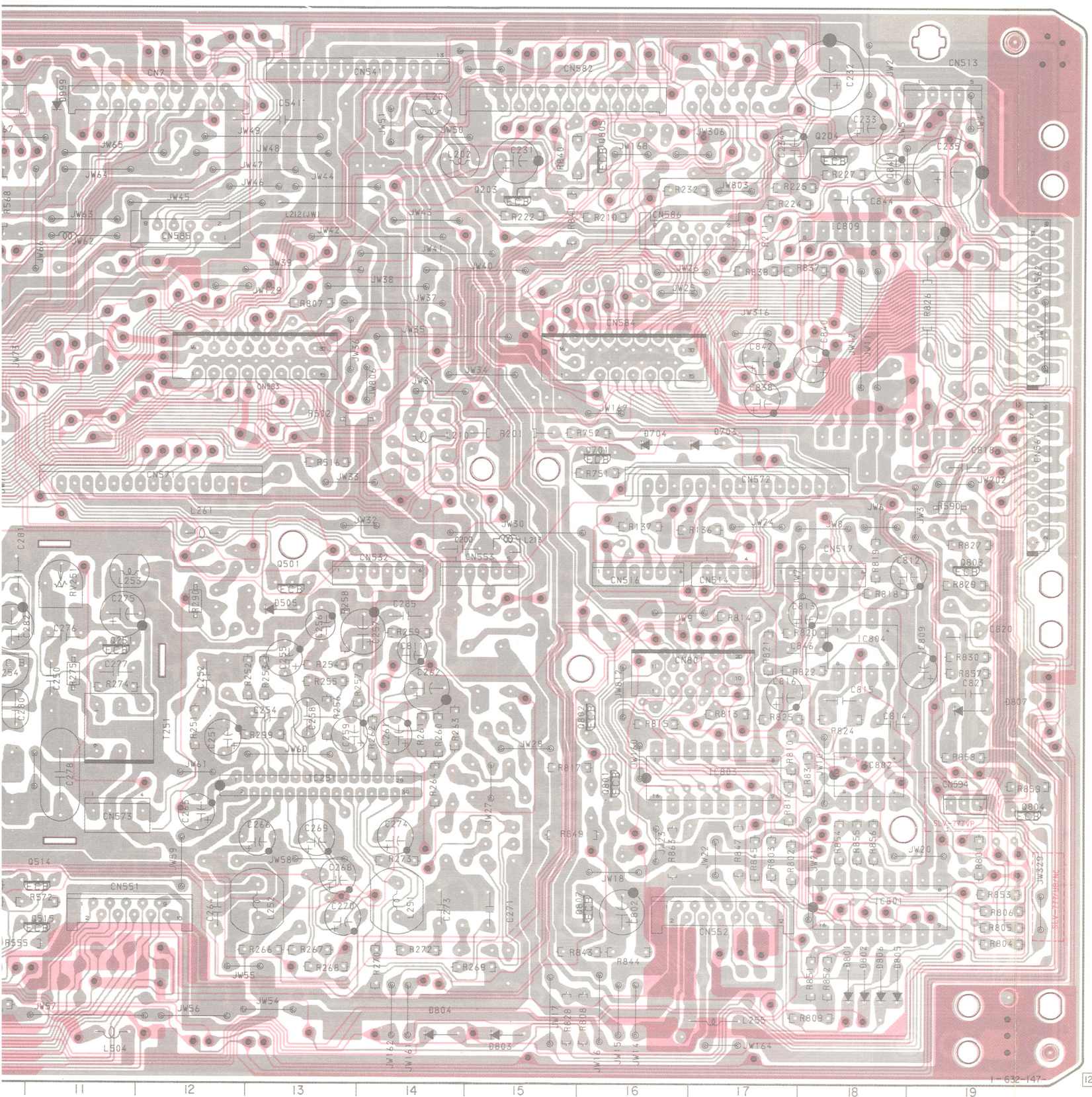
DIODE
D201 8-719-400-18 DIODE 1S2837

MA-62 BOARD

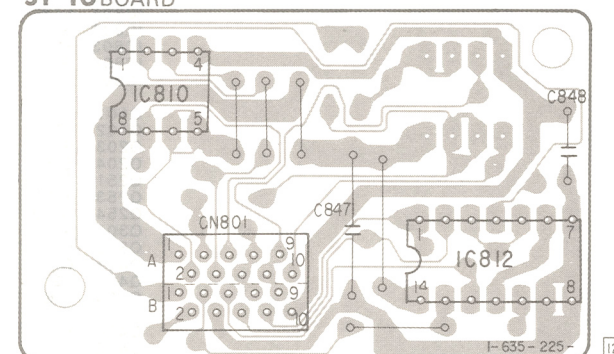
D401	H-1
D402	I-2
D403	H-1
D404	H-2
D409	I-C-4
D410	I-5
D501	I-10
D502	I-6
D505	I-1
D508	B-3
D516	I-9
D517	I-9
D518	E-2
D519	A-4
D703	I-17
D704	I-16
D801	I-18
D802	I-18
D803	O-15
D804	O-14
D805	I-18
D806	I-18
D807	I-19
D999	B-11
IC251	H-13
IC401	I-3
IC402	O-3
IC403	O-6
IC404	O-5
IC406	O-3
IC501	T-7
IC502	B-6
IC503	T-3
IC801	I-18
IC802	H-18
IC803	H-16
IC804	O-18
IC809	O-18
Q101	I-8
Q102	I-9
Q203	B-15
Q204	B-8
Q251	O-11
Q253	T-10
Q254	O-10
Q301	I-7
Q302	I-8
Q401	G-2
Q403	I-2
Q404	H-6
Q405	H-5
Q410	E-5
Q412	H-5
Q423	O-7
Q428	O-8
Q430	D-2
Q431	O-2
Q432	D-4
Q435	O-6
Q501	T-13
Q502	E-6
Q503	B-2
Q504	O-2
Q505	D-2
Q506	E-3
Q507	E-5
Q508	O-10
Q514	I-11
Q515	I-11
Q516	H-9
Q517	I-10
Q518	I-9
Q519	I-9
Q701	E-15
Q801	H-16
Q802	O-16
Q803	T-19
Q804	H-19
Q805	B-15
Q807	I-16

MA-62 BOARD

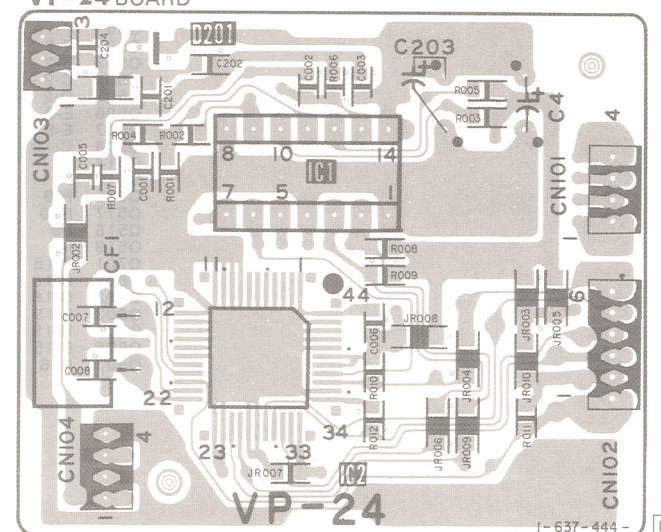




SI-10BOARD



VP-24 BOARD



— Ref. No. MA-62 BOARD: 7000 series —

TO
MA-62 BOARD
(1/2)
(See Page 125)

TO
MD-49 BOARD
CN007
(See Page 144)

TO
MD-49 BOARD
CN004
(See Page 144)





	REC	REC/PB	PB
Drum speed servo			
Drum phase servo			
Drum servo (speed and phase)			
Capstan speed servo			
Capstan phase servo			
Capstan servo (speed and phase)			
Ref. signal			

1 IC404 (1) PB
6.5Vp-p
2V

2 IC501 (1) REC/PB
5.5Vp-p
2V
RF SWP

3 IC501 (7, 67) PB
5.5Vp-p
2V
REC PB CTL CTL

4 IC501 (42) REC
2.6Vp-p
12 MHz

5 IC501 (66) REC/PB
5.4Vp-p
H

6 IC501 (68) REC/PB
4Vp-p
2V

7 IC501 (69) REC/PB
5.5Vp-p
3.4 msec

8 IC501 (70) REC/PB
5Vp-p
0.68 msec

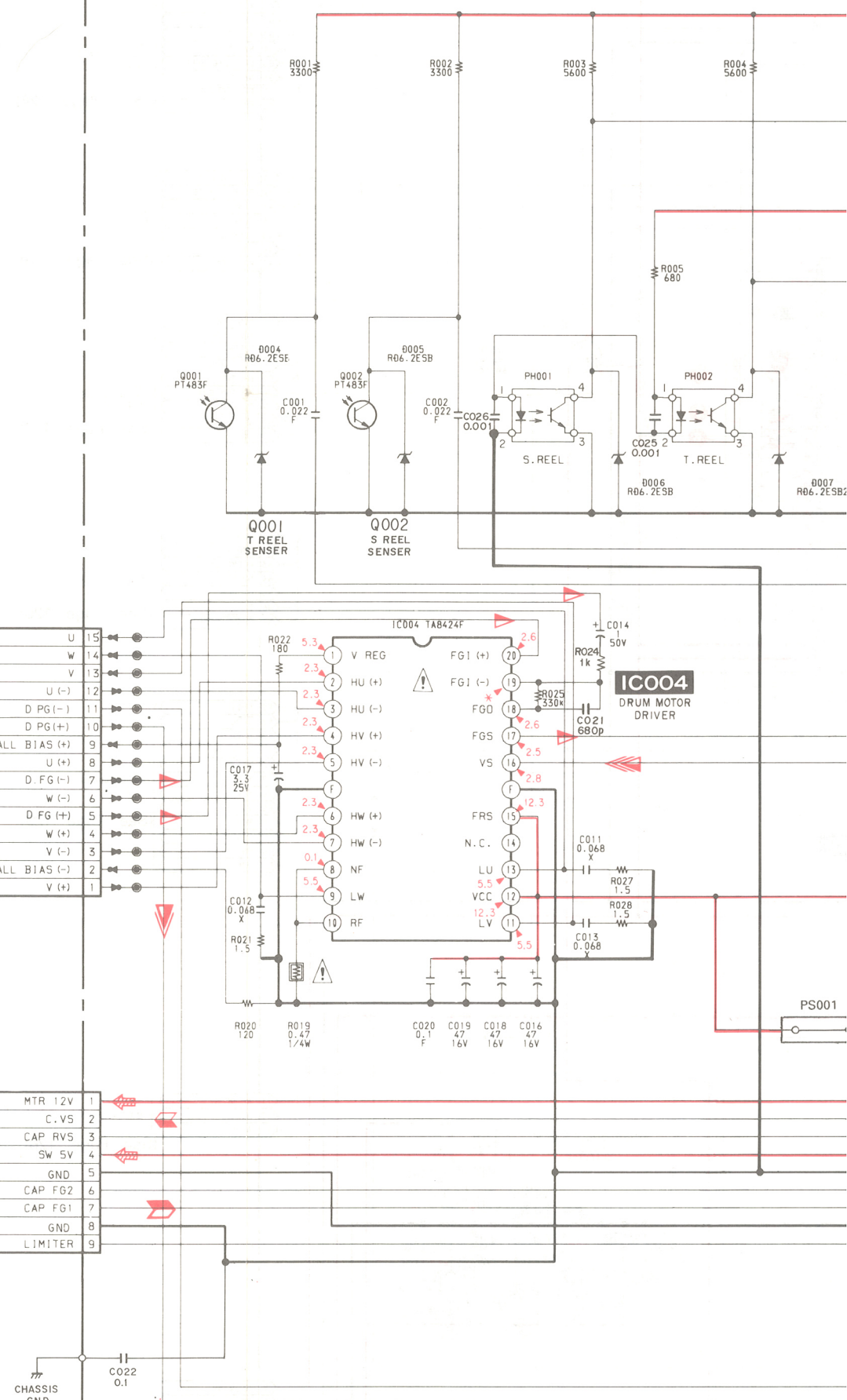
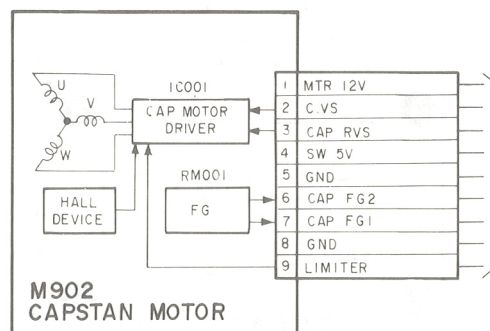
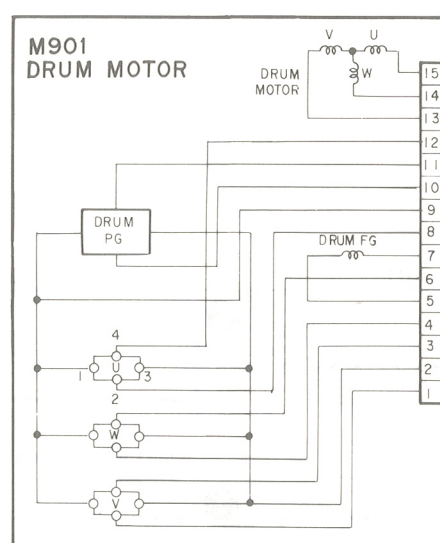
9 IC503 (18) REC
5Vp-p
2V

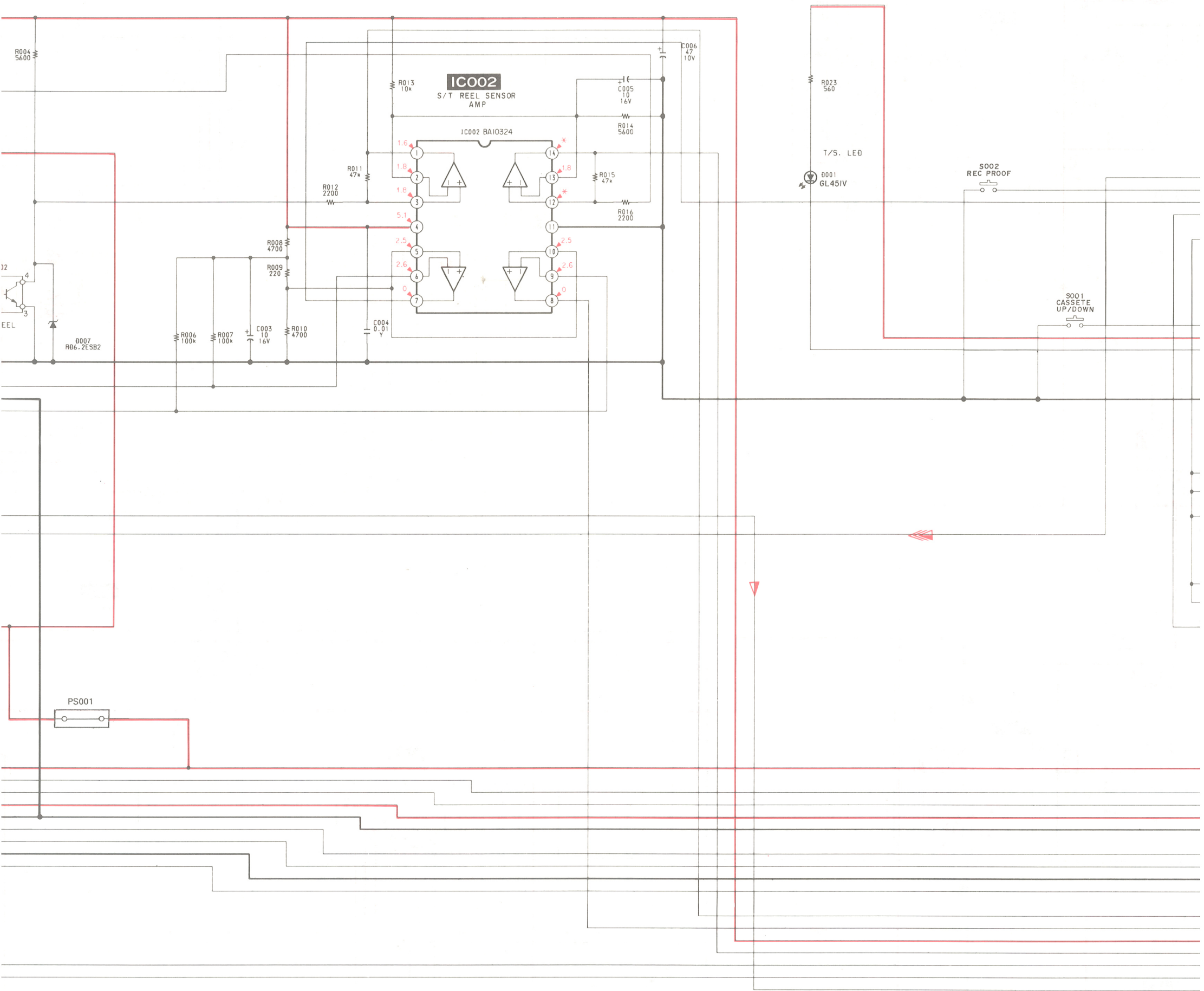
10 IC503 (26) REC/PB
5.2Vp-p
4 MHz

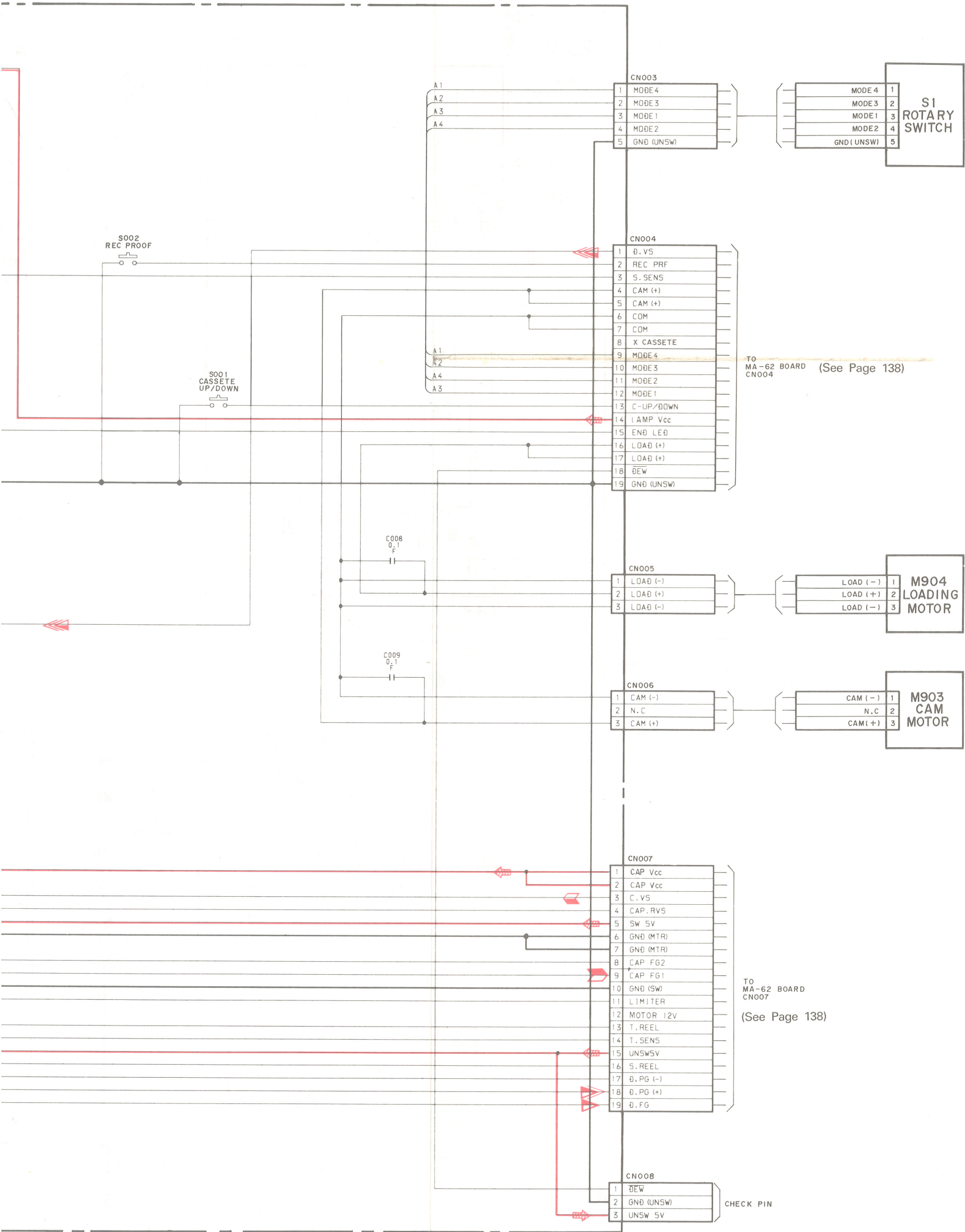
MD-49 (MECHANISM DRIVE) SCHEMATIC DIAGRAM

— Ref. No. MD-49 BOARD: 9000 series —

MD-49 BOARD

no mark : REC/PB mode
* : can not be measured.





• SIGNAL PATH

	REC	REC/PB	PB
Drum speed servo		▶	
Drum phase servo		▶▶	
Drum servo (speed and phase)		▶▶▶	
Capstan speed servo		▶	
Capstan phase servo			
Capstan servo (speed and phase)			
Ref. signal			

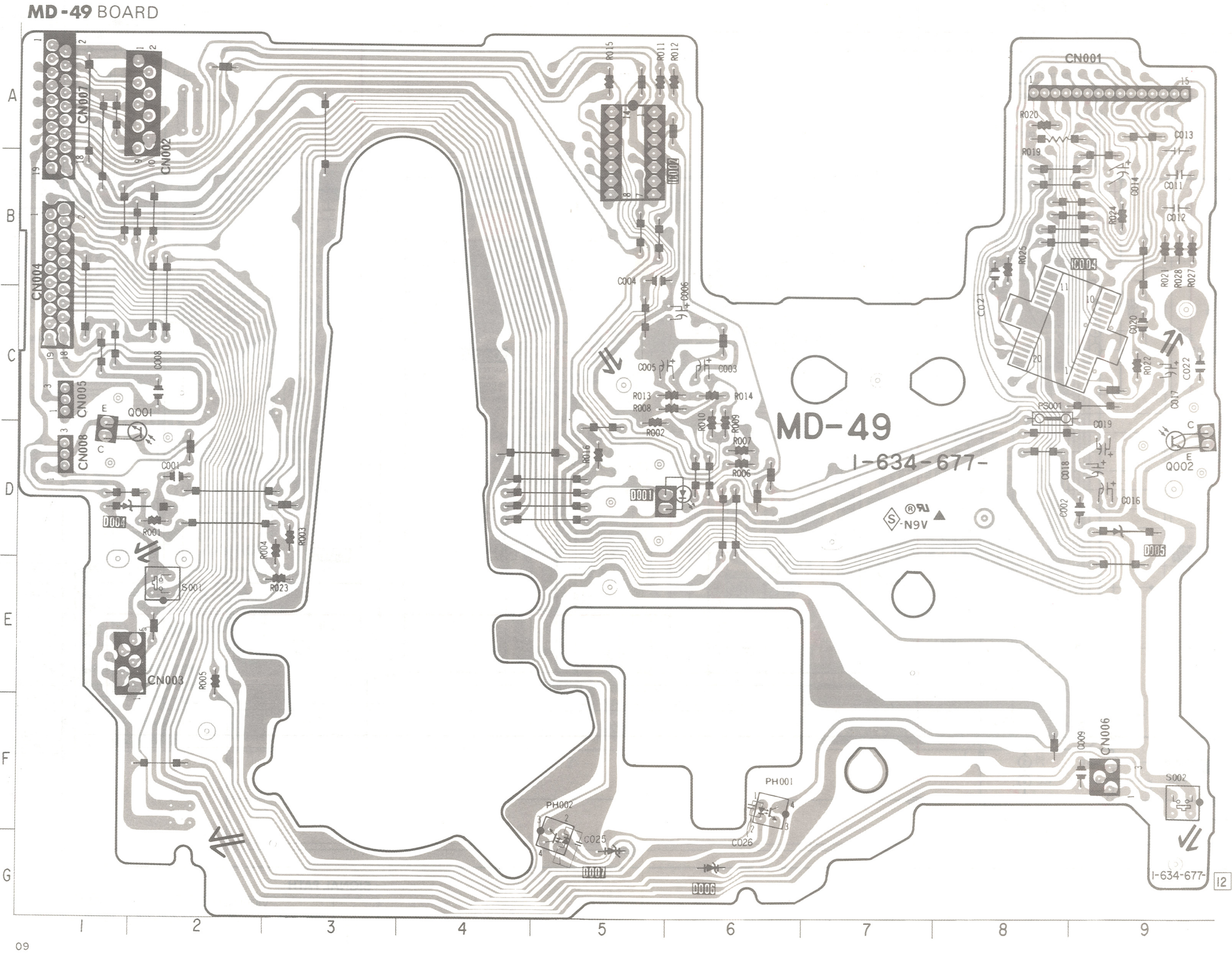
MD-49 (MECHANISM DRIVE) PRINTED WIRING BOARD

— Ref. No. MD-49 BOARD: 9000 series —

DIODE			IC		TRANSISTOR			
D001	8-719-974-65	DIODE GL451V (LED)	IC002	8-759-938-12	IC BA10324	Q001	8-729-921-53	PHOTO TRANSISTOR PT483F1
D004	8-719-109-93	DIODE RD6.2ESB2	IC004	8-759-234-03	IC TA8424F	Q002	8-729-921-53	PHOTO TRANSISTOR PT483F1
D005	8-719-109-93	DIODE RD6.2ESB2						
D006	8-719-109-93	DIODE RD6.2ESB2						
D007	8-719-109-93	DIODE RD6.2ESB2						

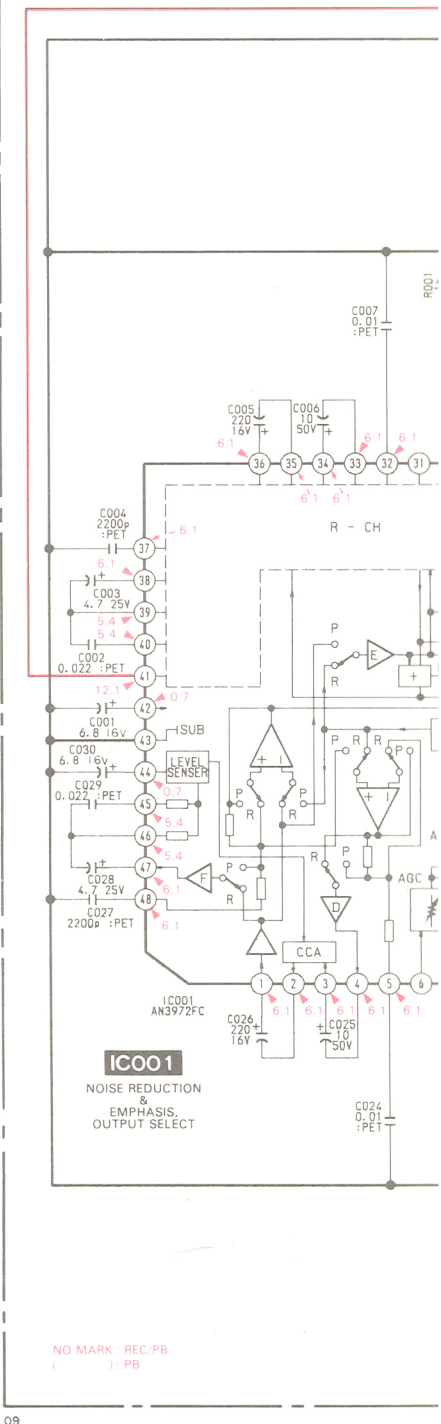
MD-49 BOARD

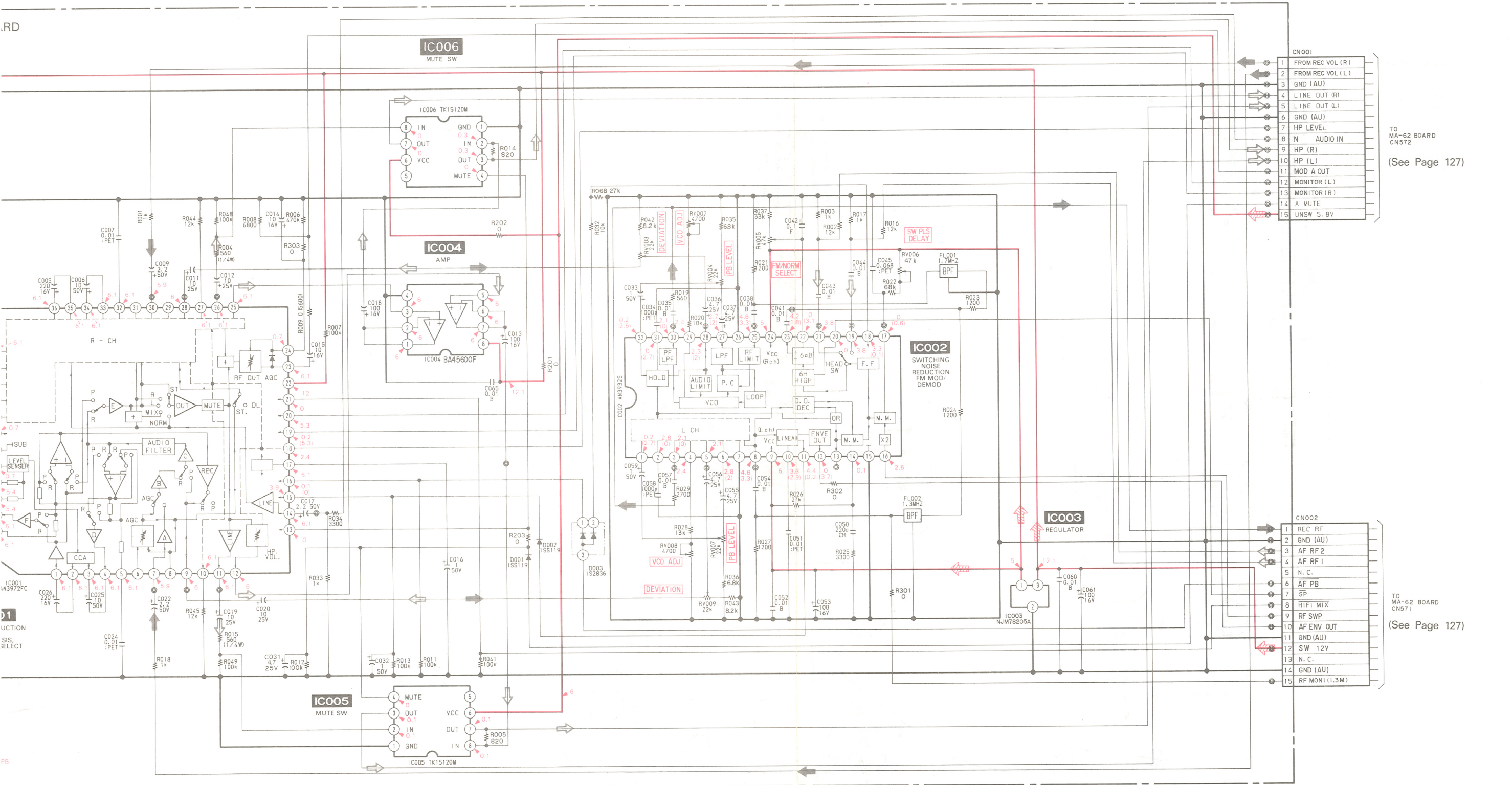
D001	D-5
D002	C-2
D003	C-2
D004	D-1
D005	D-9
IC002	A-5
IC004	C-8
Q001	C-1
Q002	C-9



147

148





• SIGNAL PATH

	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC				➔
PB				➔

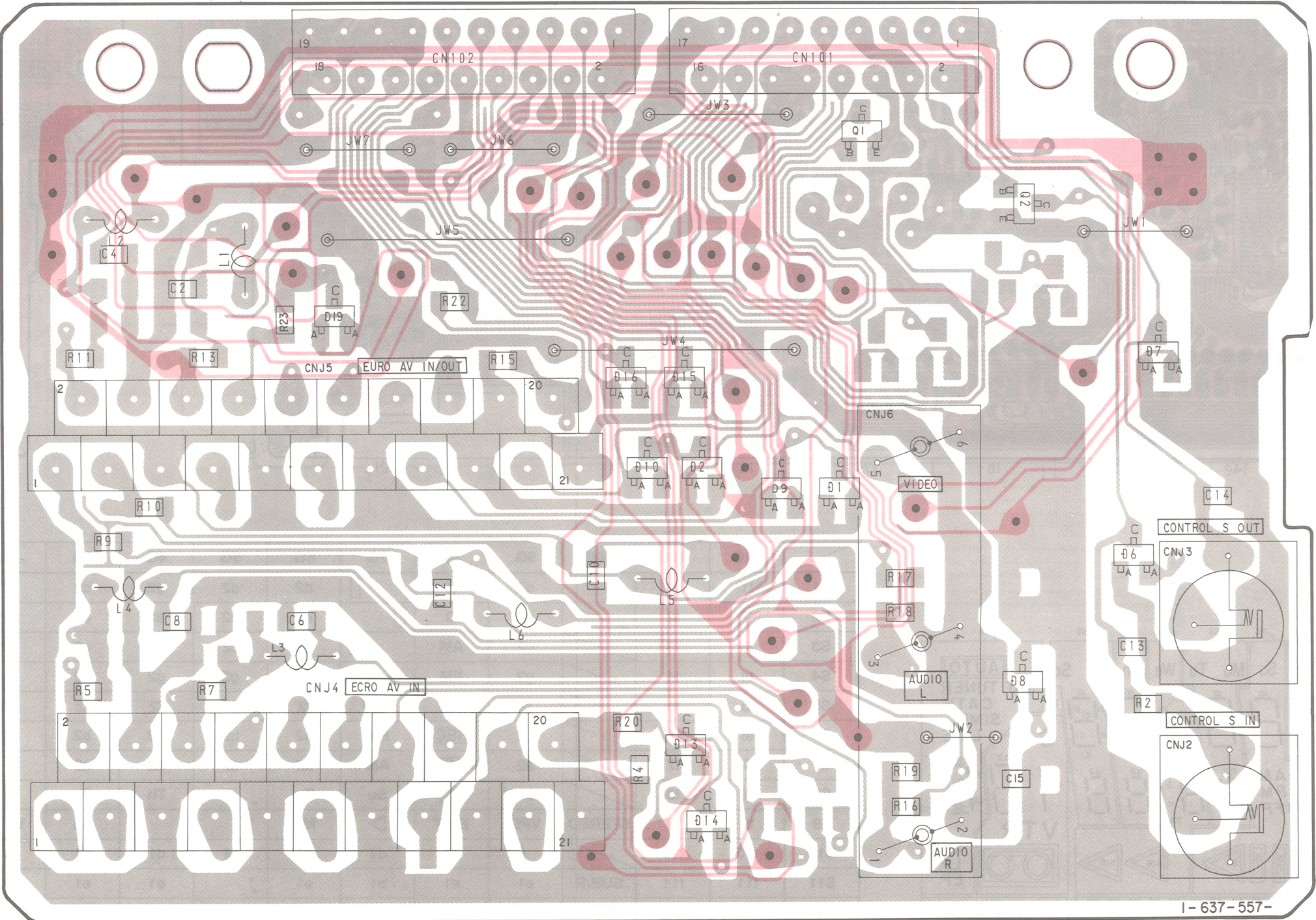
IO-40 BOARD

DIODE

D001	8-719-106-08	DIODE RD6. 2M-B2
D002	8-719-106-08	DIODE RD6. 2M-B2
D006	8-719-106-08	DIODE RD6. 2M-B2
D007	8-719-106-08	DIODE RD6. 2M-B2
D008	8-719-106-08	DIODE RD6. 2M-B2
D009	8-719-106-08	DIODE RD6. 2M-B2
D010	8-719-106-08	DIODE RD6. 2M-B2
D013	8-719-106-08	DIODE RD6. 2M-B2
D014	8-719-106-08	DIODE RD6. 2M-B2
D015	8-719-106-08	DIODE RD6. 2M-B2
D016	8-719-106-08	DIODE RD6. 2M-B2
D019	8-719-157-61	DIODE RD15M-T1B

TRANSISTOR

Q001	8-729-901-06	TRANSISTOR DTA144EK
Q002	8-729-901-01	TRANSISTOR DTC144EK



09



	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC				
PB				

DIODE

D201	8-719-911-19	DIODE 1SS119
D202	8-719-911-19	DIODE 1SS119
D203	8-719-911-19	DIODE 1SS119
D204	8-719-911-19	DIODE 1SS119
D206	8-719-104-34	DIODE 1S2836
D208	8-719-105-82	DIODE RD5. 1M-B2
D209	8-719-106-08	DIODE RD6. 2M-B2
D211	8-719-400-18	DIODE MA152WK
D212	8-719-400-18	DIODE MA152WK
D216	8-719-400-18	DIODE MA152WK
D217	8-719-400-18	DIODE MA152WK
D218	8-719-104-34	DIODE 1S2836
D219	8-719-106-08	DIODE RD6. 2M-B2

IC

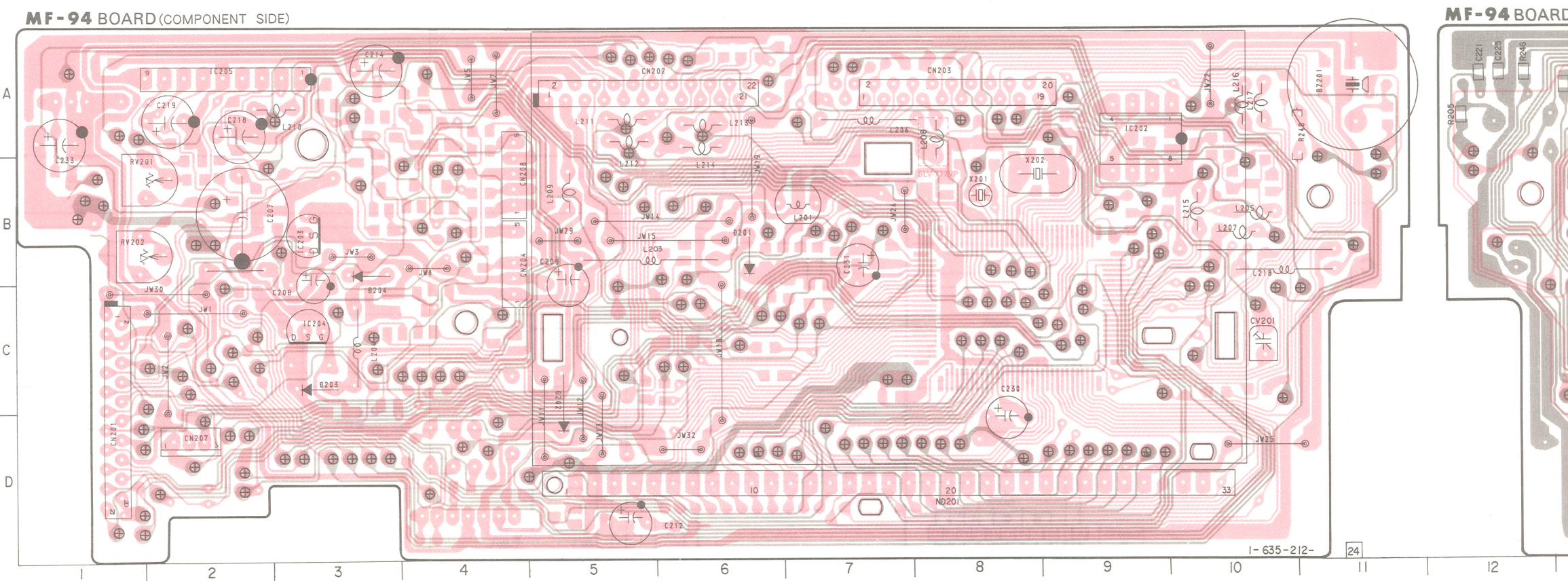
IC201	8-759-504-10	IC MB89794B-PAL
IC202	8-759-748-54	IC CAT35C202P
IC203	8-759-502-50	IC S-8053HNB
IC204	8-759-947-53	IC S-8054ALR
IC205	8-759-961-38	IC BA6138

TRANSISTOR

Q201	8-729-271-23	TRANSISTOR 2SC2712
Q202	8-729-271-23	TRANSISTOR 2SC2712
Q205	8-729-901-01	TRANSISTOR DTC144EK
Q206	8-729-901-01	TRANSISTOR DTC144EK

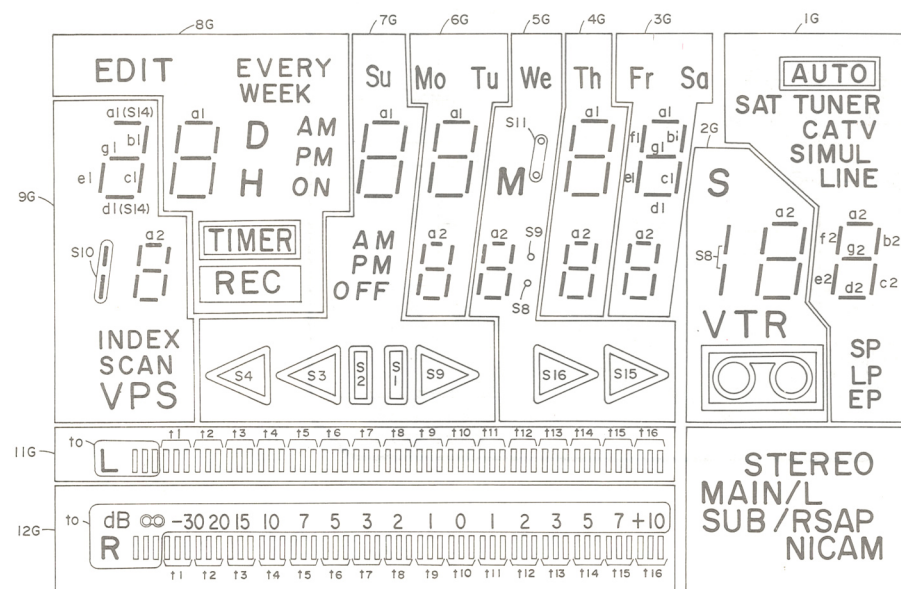
MF-94 BOARD

D201	B-6
D202	D-5
D203	C-3
D204	B-3
D206	C-19
D208	D-18
D209	A-14
D211	A-20
D212	A-20
D216	B-19
D217	B-19
D218	B-17
D219	B-15
IC201	C-15
IC202	A-9
IC203	B-3
IC204	C-3
IC205	A-2
Q201	A-19
Q202	B-20
Q205	C-19
Q206	C-10



D502	8-719-955-04	DIODE SLR-54MC3	(AUTO TRAKING)
D503	8-719-302-07	DIODE SLR-54DC3	(EDIT MONITOR)
D504	8-719-921-01	DIODE SLR-54VC3	(AUDIO INSERT)
D505	8-719-921-01	DIODE SLR-54VC3	(VIDEO INSERT)
D506	8-719-955-04	DIODE SLR-54MC3	()

-  : Through hole.



	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
S1	t1	t1		d2	H		d2	d2	d2	d2	d2	d2
S2	t2	t2		e2	D		e2	e2	e2	e2	e2	e2
S3	t3	t3		c2	AM		c2	c2	c2	c2	c2	c2
S4	t4	t4		g2	PM		g2	g2	g2	g2	g2	g2
S5	t5	t5		f2	ON	OFF	f2	f2	f2	f2	f2	f2
S6	t6	t6		b2	REC	PM	b2	b2	b2	b2	b2	b2
S7	t7	t7		a2	TIMER	AM	a2	a2	a2	a2		a2
S8	t8	t8		SCAN	EVERY WEEK	Su	Tu	,	Th	Fr	/	SP
S9	t9	t9	STEREO	VPS	EDIT		Mo	'		Sa	VTR	LP
S10	t10	t10		/	d1	d1	d1	M	d1	d1	S	LINE
S11	t11	t11	SUB/R	e1	e1	e1	e1	:	e1	e1		SIMUL
S12	t12	t12	NICAM	c1	c1	c1	c1		c1	c1		CATV
S13	t13	t13		g1	g1	g1	g1		g1	g1		TUNER
S14	t14	t14		a1, d1	f1	f1	f1	We	f1	f1		AUTO
S15	t15	t15	SAP	b1	b1	b1	b1		b1	b1		SAT
S16	t16	t16	MAIN/L	INDEX	a1	a1	a1		a1	a1		EP

— Ref. No. MF-94, RM-42 BOARDS: 9000 series —

A

B

C

D

E

F

G

H

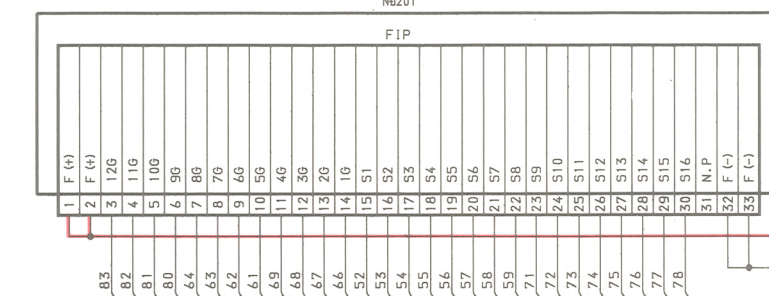
I

J

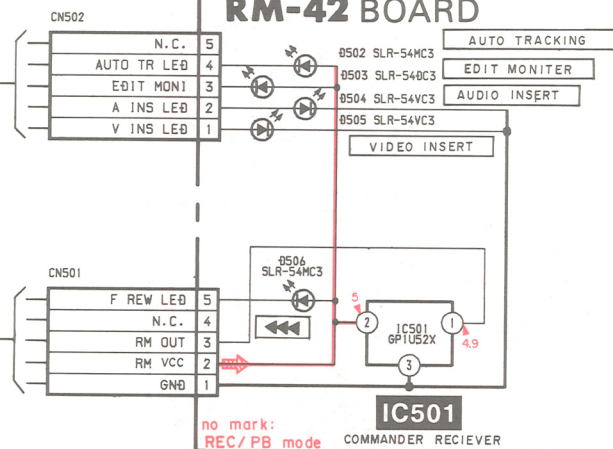
MF-94 BOARD no mark : REC/PB mode

NB201

FIP



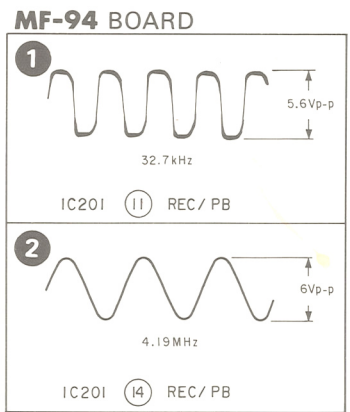
RM-42 BOARD

TO MF-101 BOARD
CN102
(See Page 169)

NO USE

09

IC203
RESETIC204
POWER FAIL

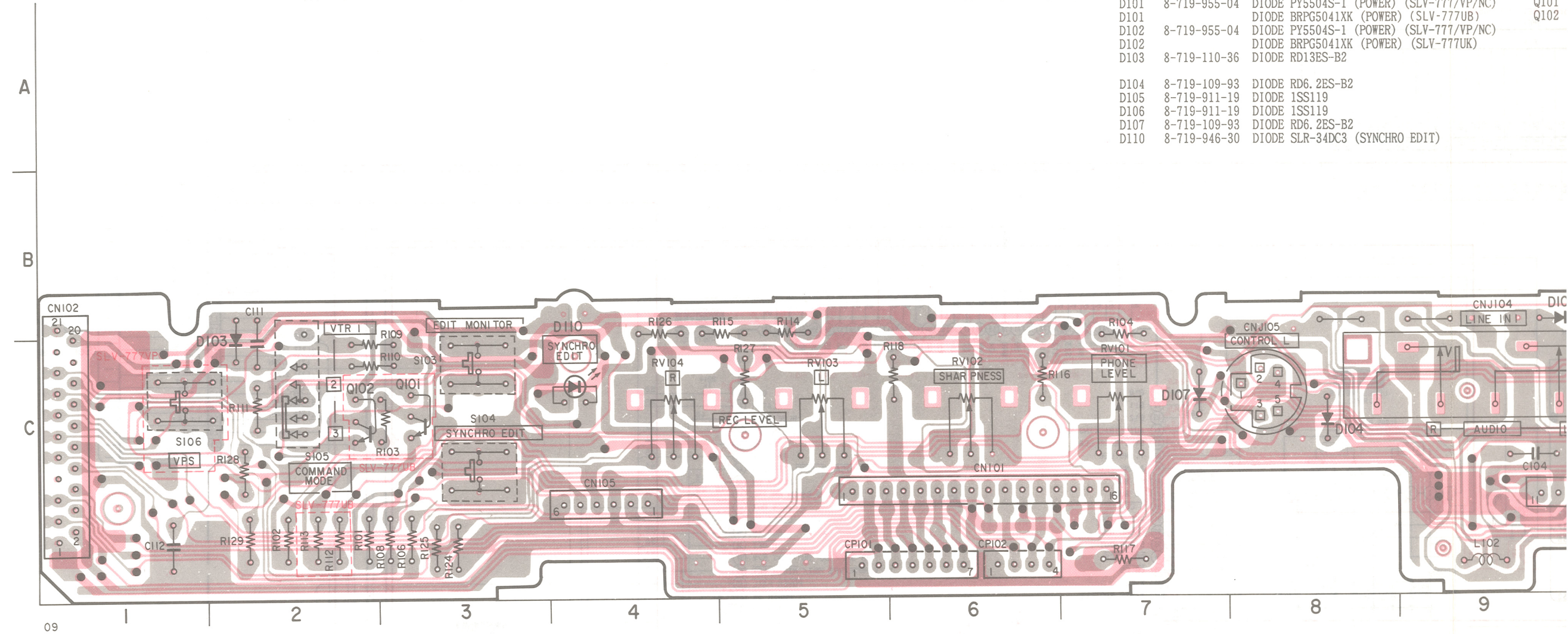


MF-101 BOARD

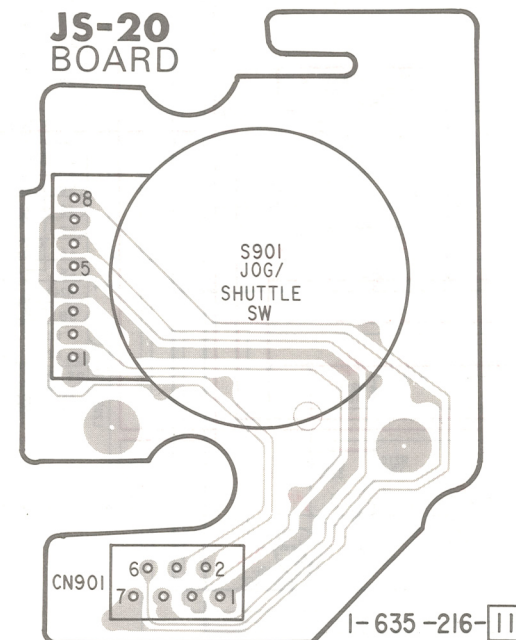
D101	A-12
D102	A-12
D103	B-2
D104	C-8
D105	B-10
D107	C-7
D110	C-4

Q101 C-3
Q102 C-2

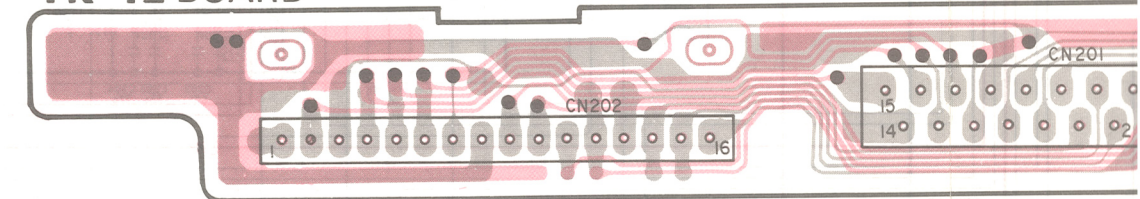
MF-101 BOARD



JS-20
BOARD



TK-12 BOARD



TRANSISTORSLV-777UB

— Ref. No. TK-12 BOARD: 6000 series, JS-20 BOARD: 8000 series, MF-101 BOARD: 90000 series —

A

B

C

D

E

F

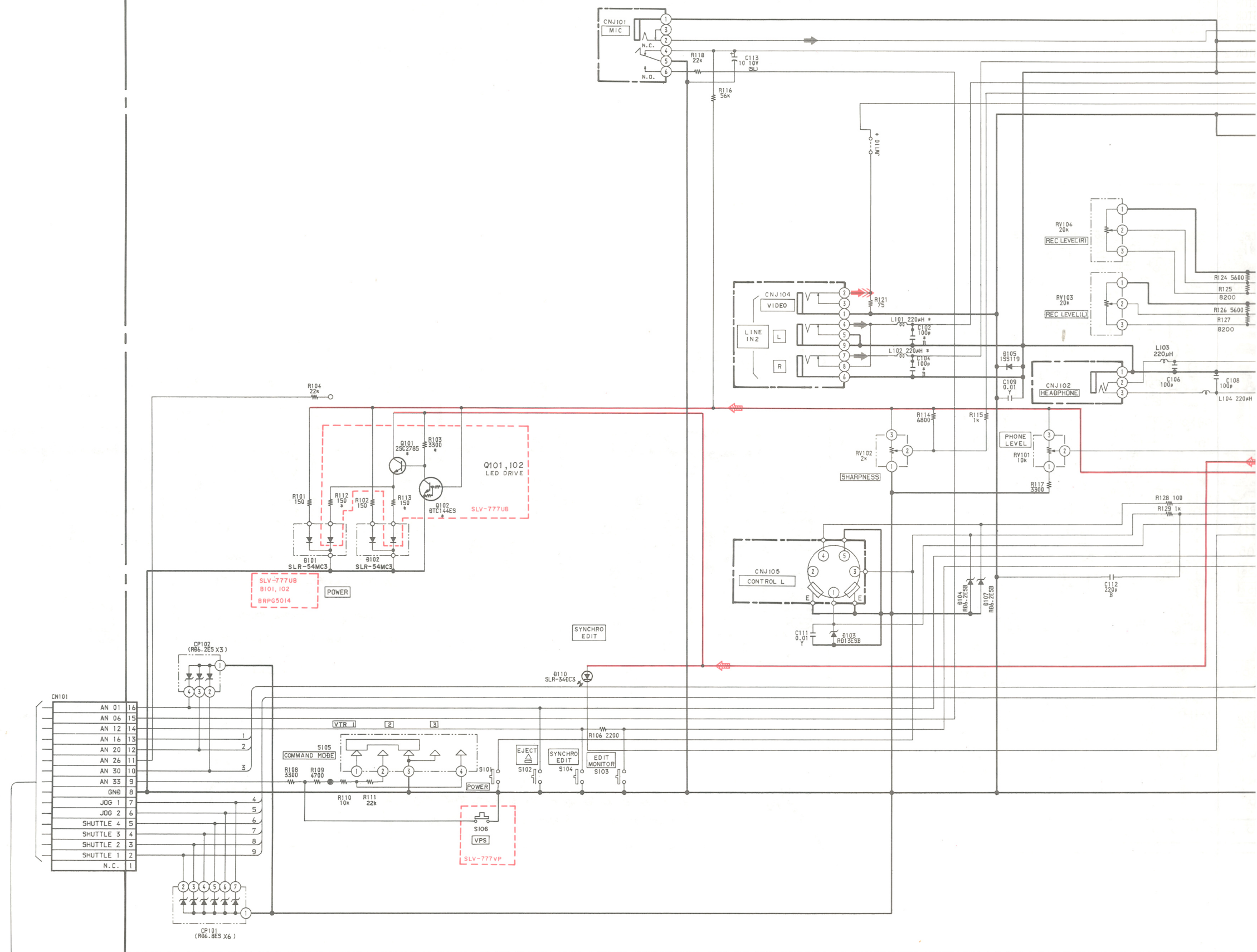
G

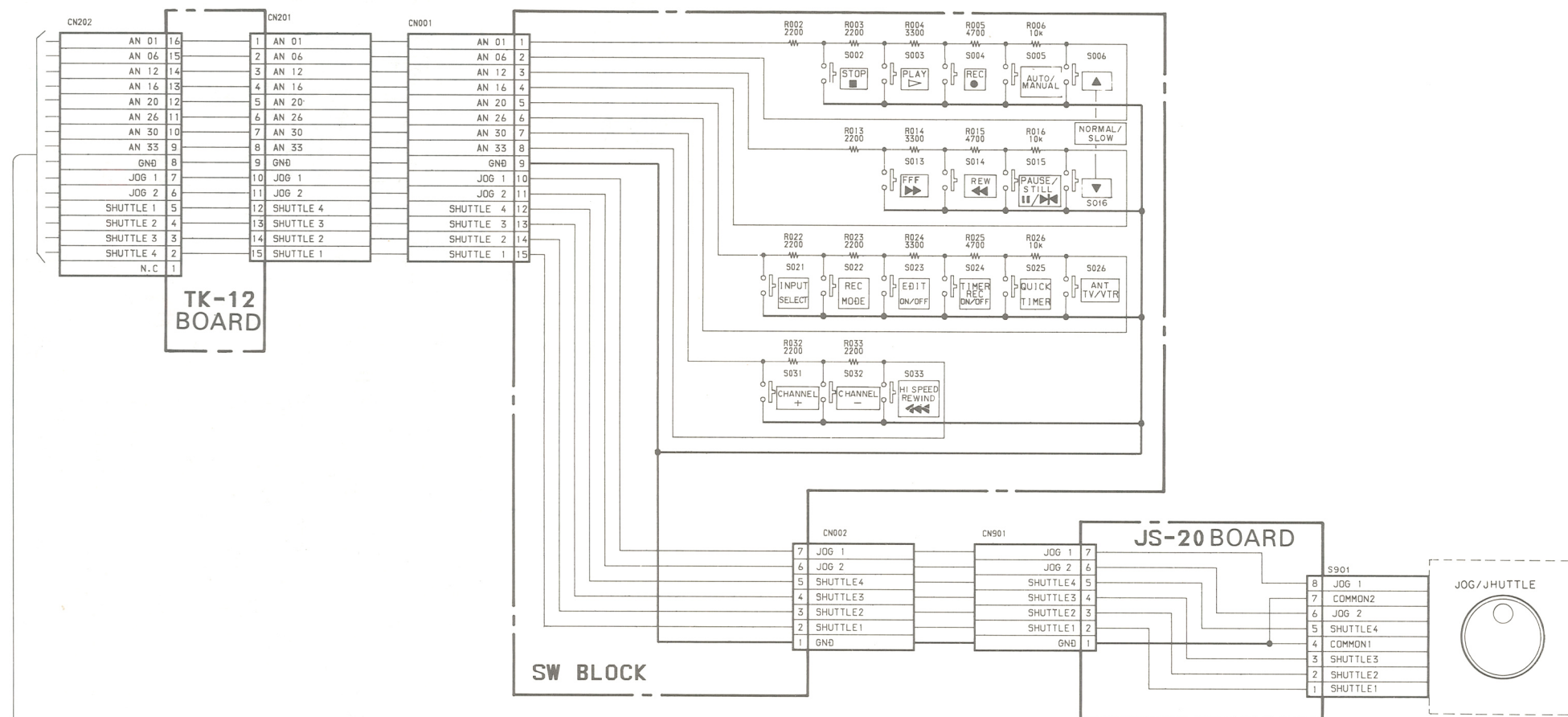
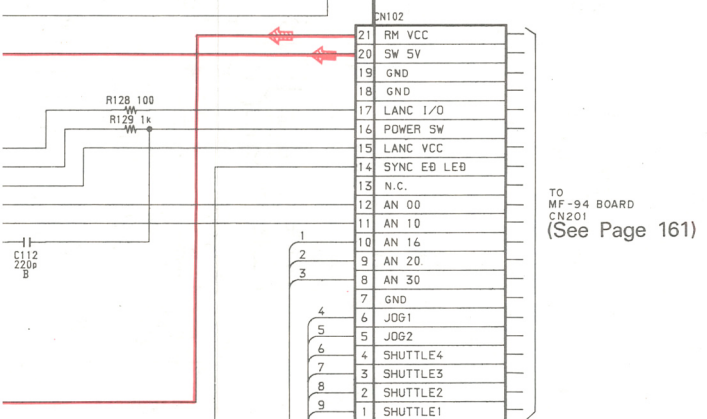
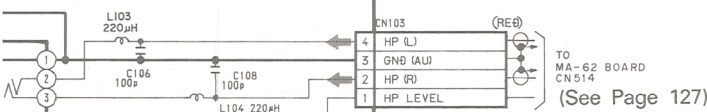
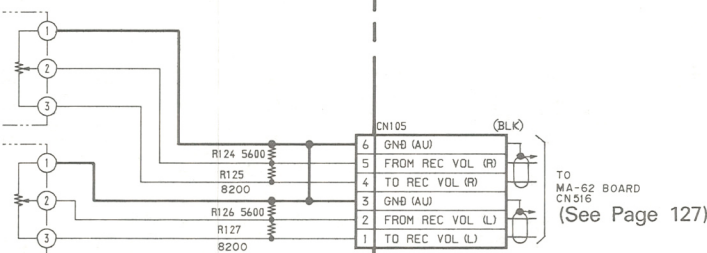
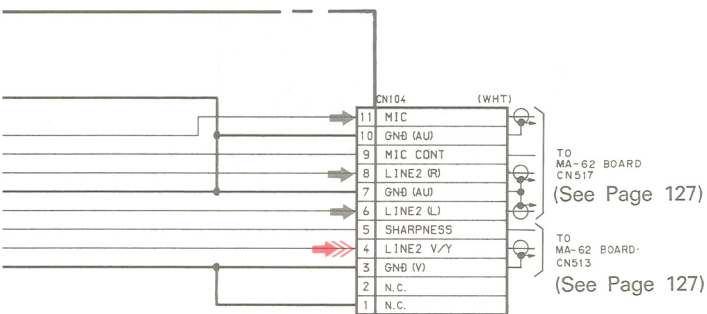
H

I

J

MF-101 BOARD





• Signal path

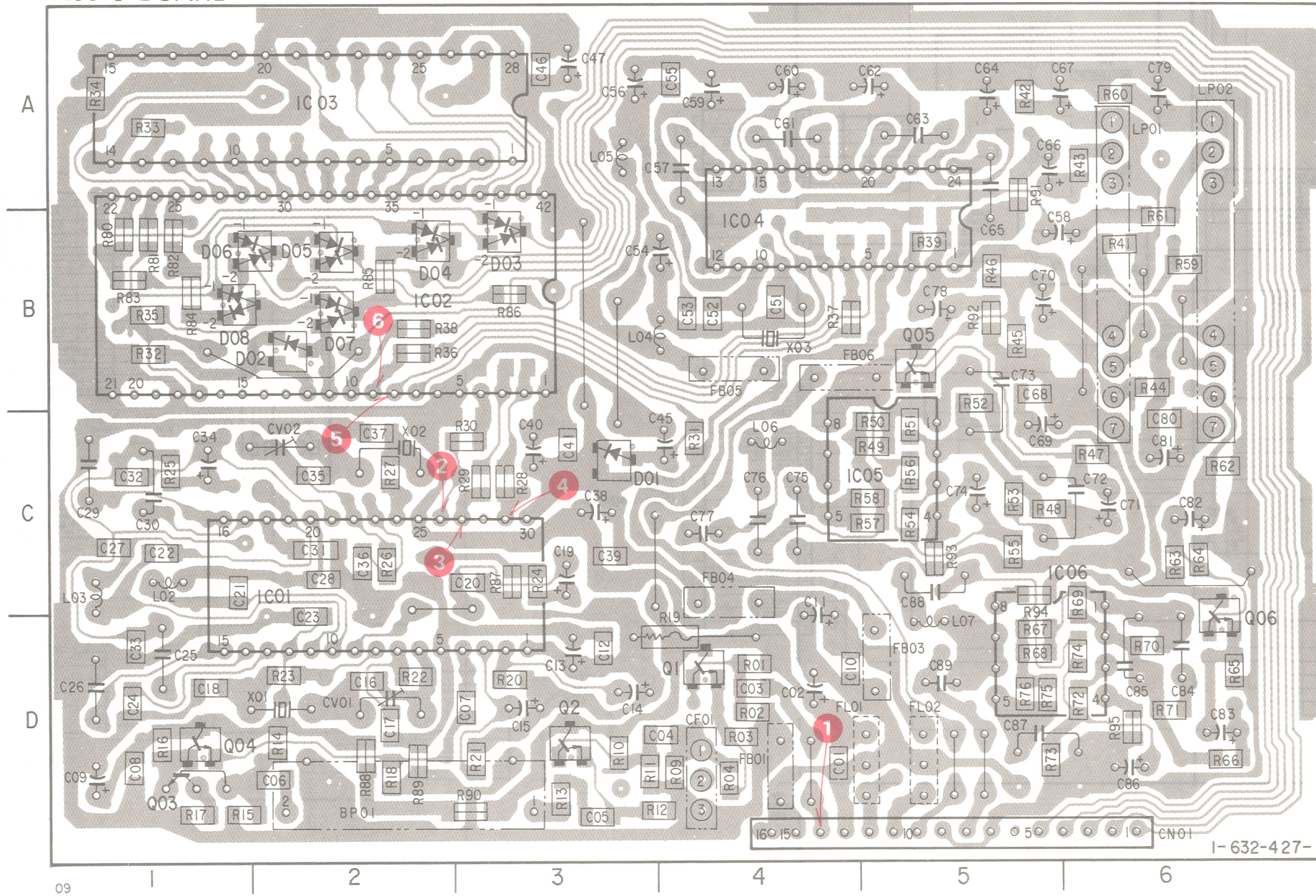
	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC			➡➡➡	➡
PB				

— Ref. No. NA-7 BOARD: 3000 series, NM-1 BOARD: 8000 series —

<u>TRANSISTOR</u>			
Q001	8-729-100-66	TRANSISTOR	2SC1623-L6
Q002	8-729-100-66	TRANSISTOR	2SC1623-L6
Q003	8-729-104-80	TRANSISTOR	2SC3355
Q004	8-729-100-66	TRANSISTOR	2SC1623-L6
Q005	8-729-100-66	TRANSISTOR	2SC1623-L6
Q006	8-729-100-66	TRANSISTOR	2SC1623-L6

<u>DIODE</u>			<u>TRANSISTOR</u>		
D002	8-719-911-19	DIODE 1SS119	Q003	8-729-900-80	TRANSISTOR DTC114ES
D003	8-719-911-19	DIODE 1SS119	Q004	8-729-900-80	TRANSISTOR DTC114ES
D010	8-719-911-19	DIODE 1SS119	Q005	8-729-900-80	TRANSISTOR DTC114ES
			Q006	8-729-900-80	TRANSISTOR DTC114ES
			Q007	8-729-900-80	TRANSISTOR DTC114ES
<u>IC</u>					
IC001	8-759-800-81	IC LA7016	Q008	8-729-303-37	TRANSISTOR 2SD655E
IC002	8-759-800-81	IC LA7016	Q009	8-729-303-37	TRANSISTOR 2SD655E

NA-7 BOARD



D002	8-719-911-19	DIODE	1SS119
D003	8-719-911-19	DIODE	1SS119
D010	8-719-911-19	DIODE	1SS119

IC001	8-759-800-81	IC LA7016
IC002	8-759-800-81	IC LA7016

Q003	8-729-900-80	TRANSISTOR	DTC114ES
Q004	8-729-900-80	TRANSISTOR	DTC114ES
Q005	8-729-900-80	TRANSISTOR	DTC114ES
Q006	8-729-900-80	TRANSISTOR	DTC114ES
Q007	8-729-900-80	TRANSISTOR	DTC114ES

Q008	8-729-303-37	TRANSISTOR	2SD655E
Q009	8-729-303-37	TRANSISTOR	2SD655E

1

CNO01 (14)

2

5.824 MHz

IC001 (26)

3

728 kHz

IC001 (27)

4

2 μ sec

IC001 (29)

5

32 kHz

IC002 (8)

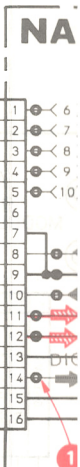
6

32 kHz

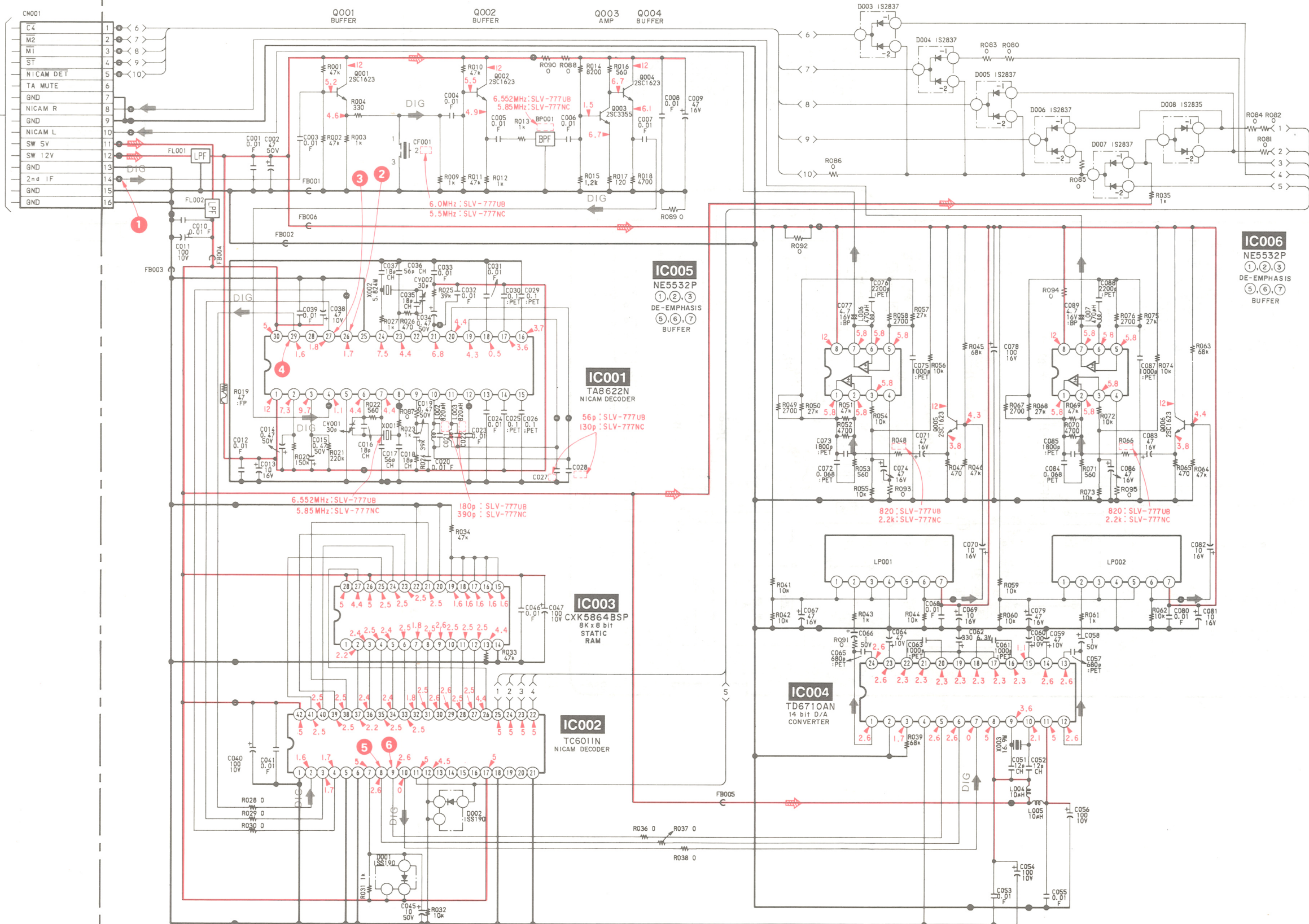
IC002 (9)

D002	A-3
D003	A-5
D010	A-2
IC001	B-4
IC002	B-4
Q001	B-2
Q002	B-2
Q003	A-1
Q004	A-1
Q005	B-1
Q006	B-1
Q007	B-5
Q008	A-3
Q009	A-4

— Ref. No. NA-7 BOARD: 3000 series, NM-1 BOARD: 8000 series —



13 14 15 16 17 18 19 20 21 22 23 24 25 26

NA-7 BOARD no mark: REC/PB mode**• SIGNAL PATH**

	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC				→
PB				

TU-120 (TUNER) PRINTED WIRING BOARD

— Ref. No. TU-120 BOARD: 2000 series —

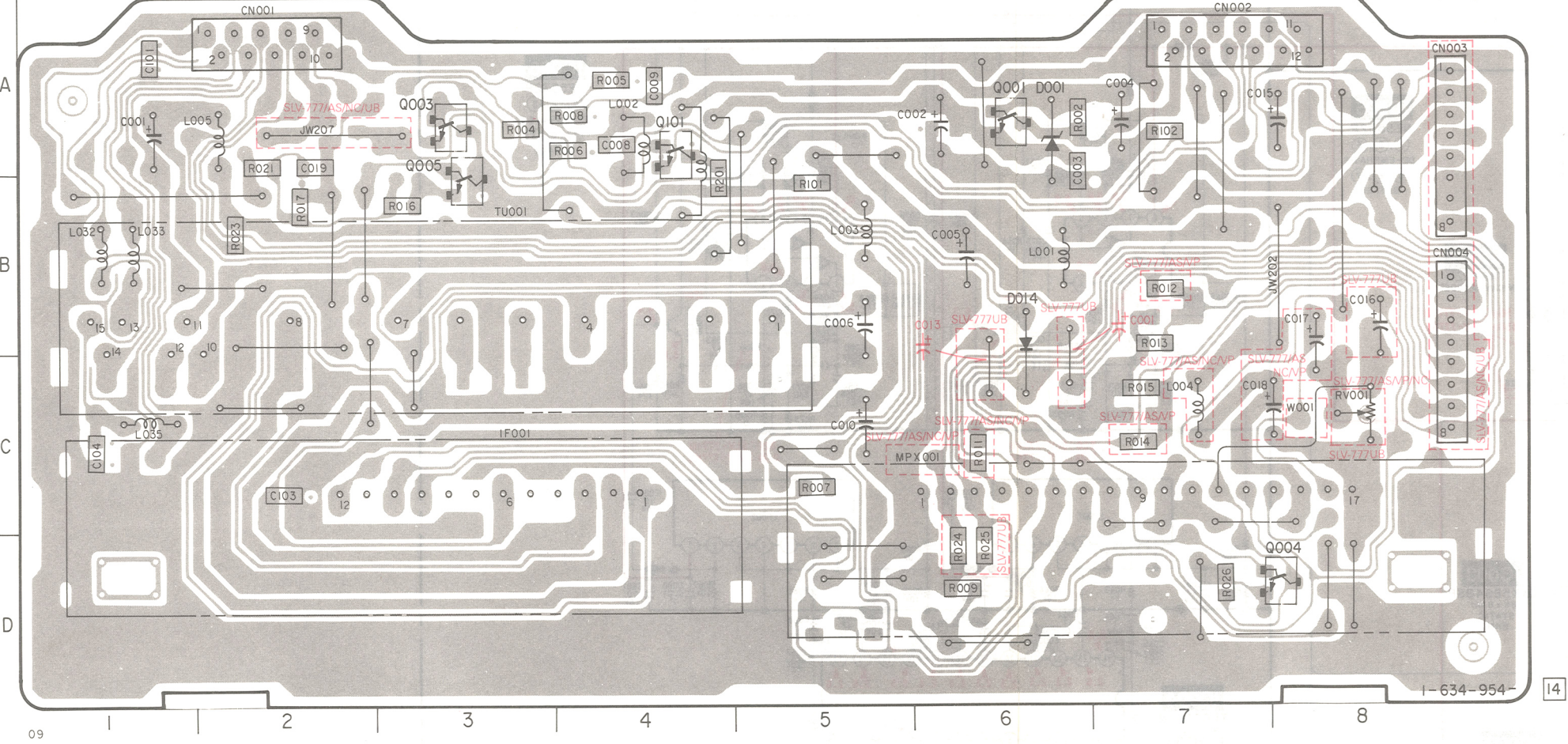
DIODE

D001 Δ8-719-110-78 DIODE RD33ES-B2
D014 8-719-911-19 DIODE 1SS119

TRANSISTOR

Q001 Δ8-729-901-78 TRANSISTOR 2SC2412K-R
Q003 8-729-901-78 TRANSISTOR 2SC2412K-R
Q004 8-729-900-98 TRANSISTOR DTC143TK
Q005 8-729-901-78 TRANSISTOR 2SC2412K-R
Q101 8-729-901-78 TRANSISTOR 2SC2412K-R

TU-120 BOARD



TU-120 BOARD

D001 A-6
D014 B-6

Q001 A-6
Q003 A-3
Q004 D-8
Q005 A-3
Q101 A-4

TU-120 (TUNER) SCHEMATIC DIAGRAM

1 2 3 4

— Ref. No. TU-120 BOARD: 2000 series —

A

B

C

D

E

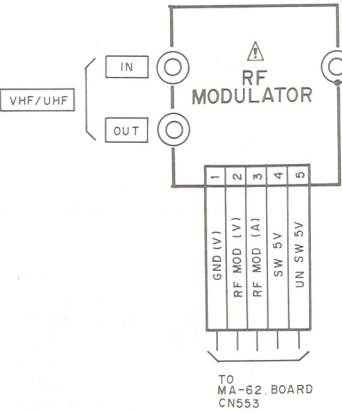
F

G

H

I

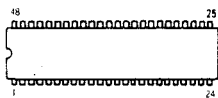
J



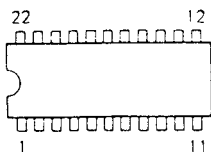
(See Page 128)

4-3. SEMICONDUCTORS

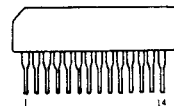
AN3231K



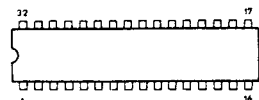
AN3592K



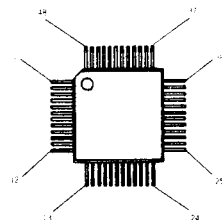
AN3916



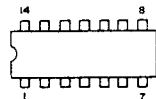
**AN3932S
M50554**



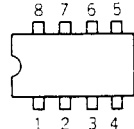
AN3972FC



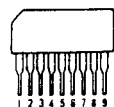
**BA10324
LM324N
MC14001BF
MC14066BCP
MC14070BCP
SDA5642**



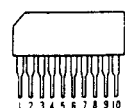
**BA4560F
TK15120M
CXL5003P
LM358N
M5201P
MSM6989RS
NE5532P
RC4556D**



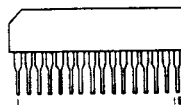
**BA6138
LA7954
LVA519A
LVA522S**



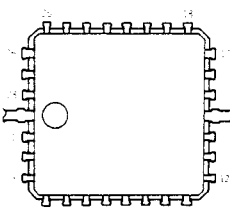
BA6238A



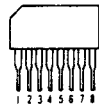
BA7077



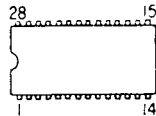
**CAT35C202P
HA11535MP
HA11567MP
HA118088MP
HA12115MP**



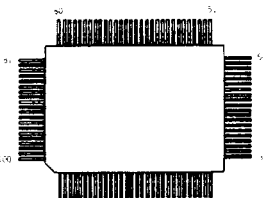
**CX20061
LA7016**



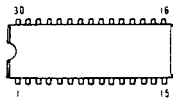
**CXK5864BSP
MC68HC05P7**



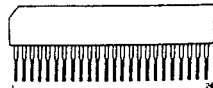
**CXP80624
HD9410
MB89794B**



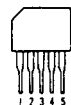
**HA118016NT
HA118019NT
TA8662NT**



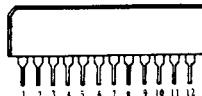
HM53461ZP



LA7213



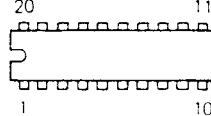
LA7222



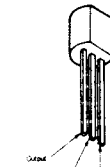
LA7297



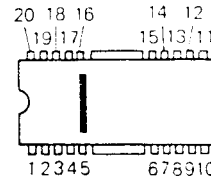
M52435P



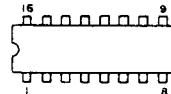
**RC78L05A
S-8053ALR
S-8053HNB**



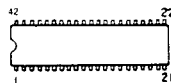
TA8424F



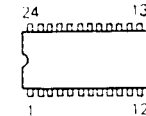
TC4052BPHB



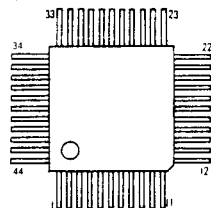
TC6011N



TD6710N



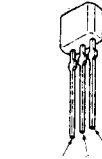
μPD75004G3



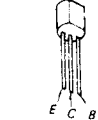
**2SA1115
2SC1740
2SC2603
DTA114ES
DTA144ES
DTC114ES
DTA144ES**



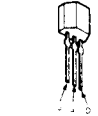
**2SA1309
2SD1020TP
2SC3311**



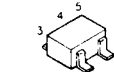
2SA933S



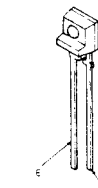
2SK381



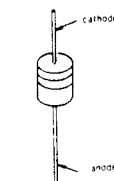
FMS1



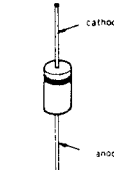
PT4831F1S



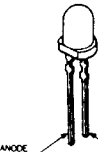
**11ES2
1SS119
1SS133
ERA82
RD13ES
RD6.2ES
UZ-33BSB**



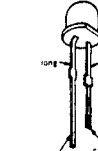
**RD4.7EL
RD5.1EL
UZ-6.2BSB**



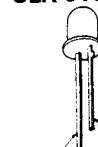
**SLR-34DC3
SLR-54MC3**



SLR-54DC3



SLR-54VC3



SECTION 5 EXPLODED VIEWS

NOTE:

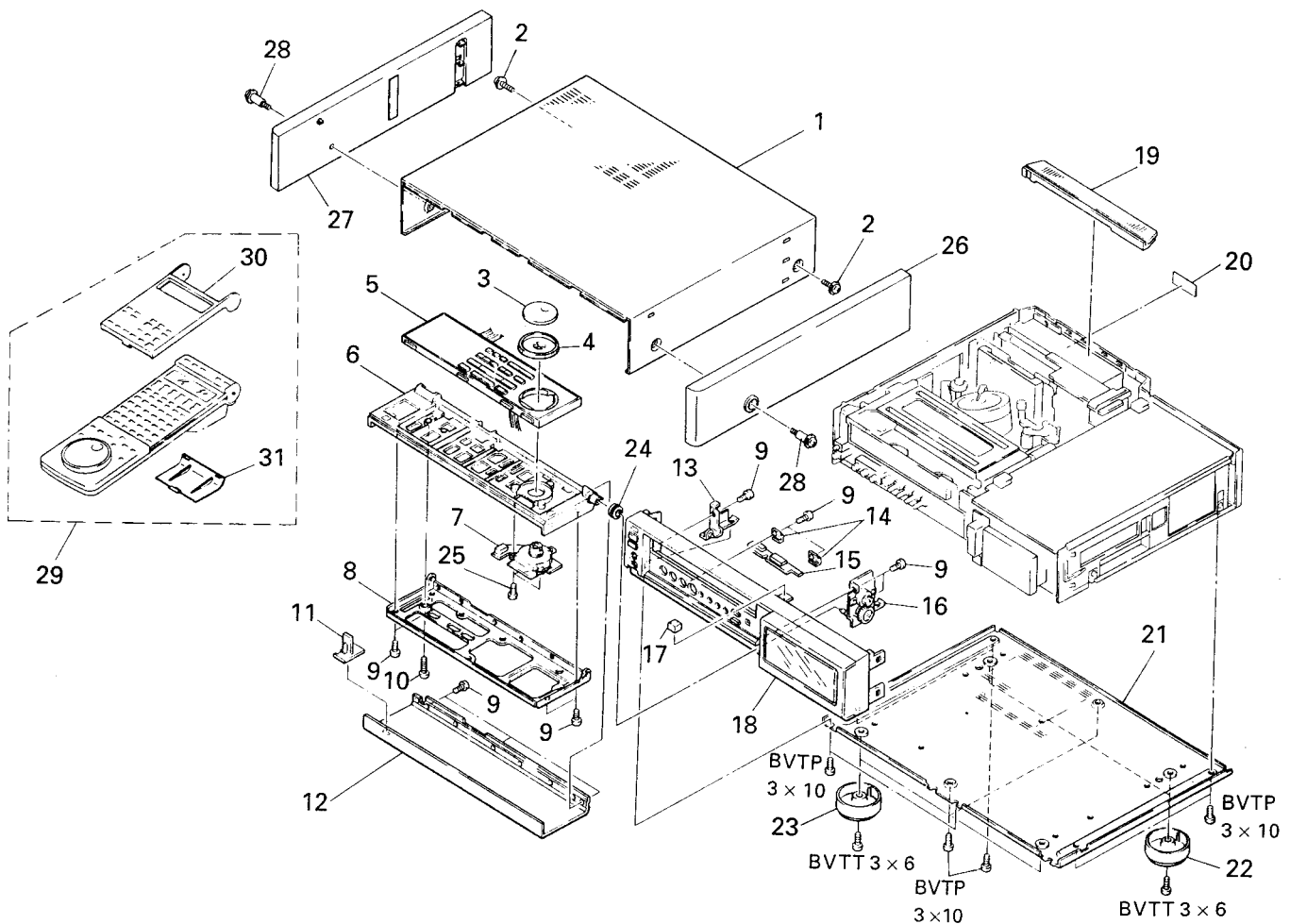
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The mechanical parts with no reference number in the exploded views are not supplied.

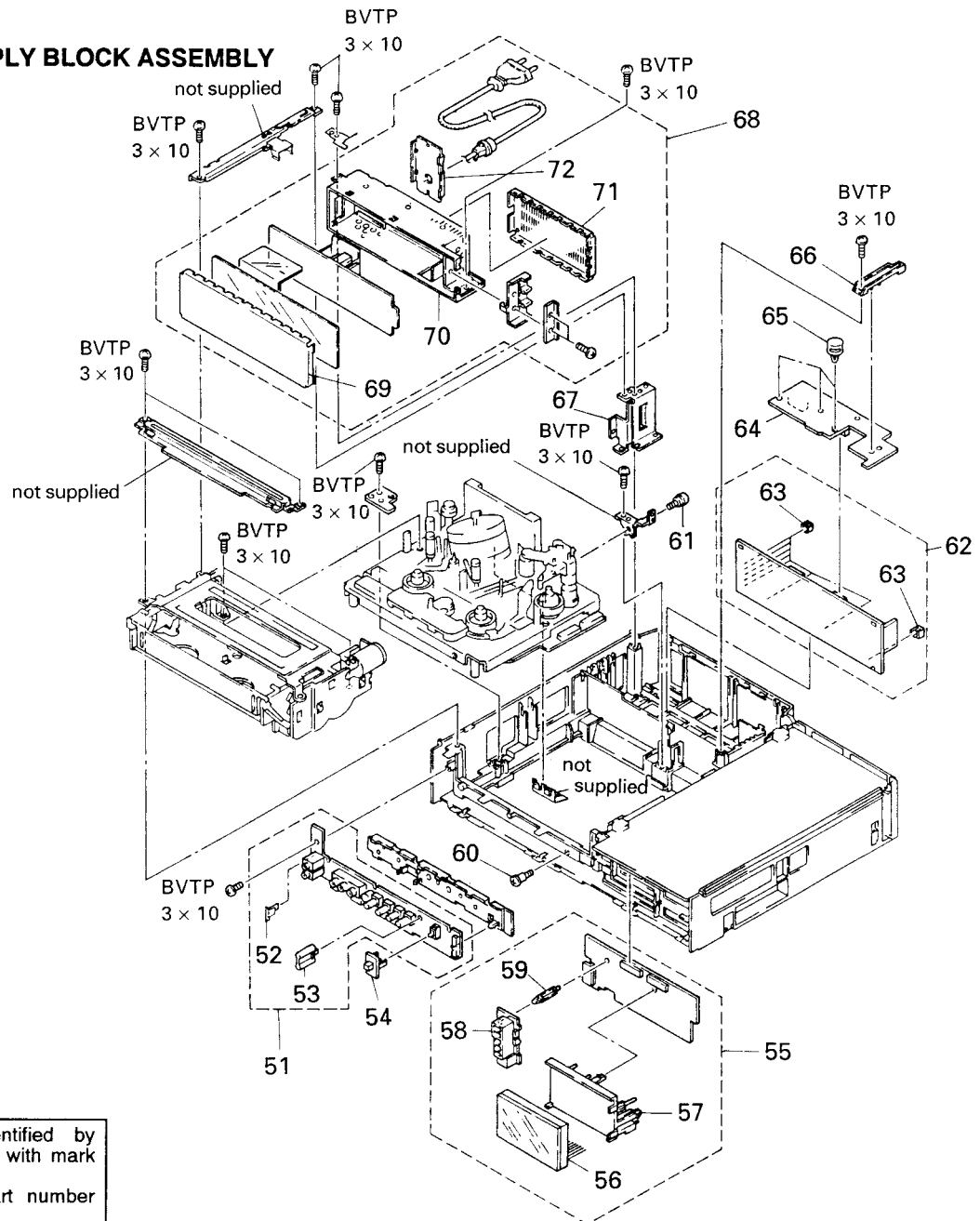
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

5-1. FRONT PANEL AND CABINET ASSEMBLIES



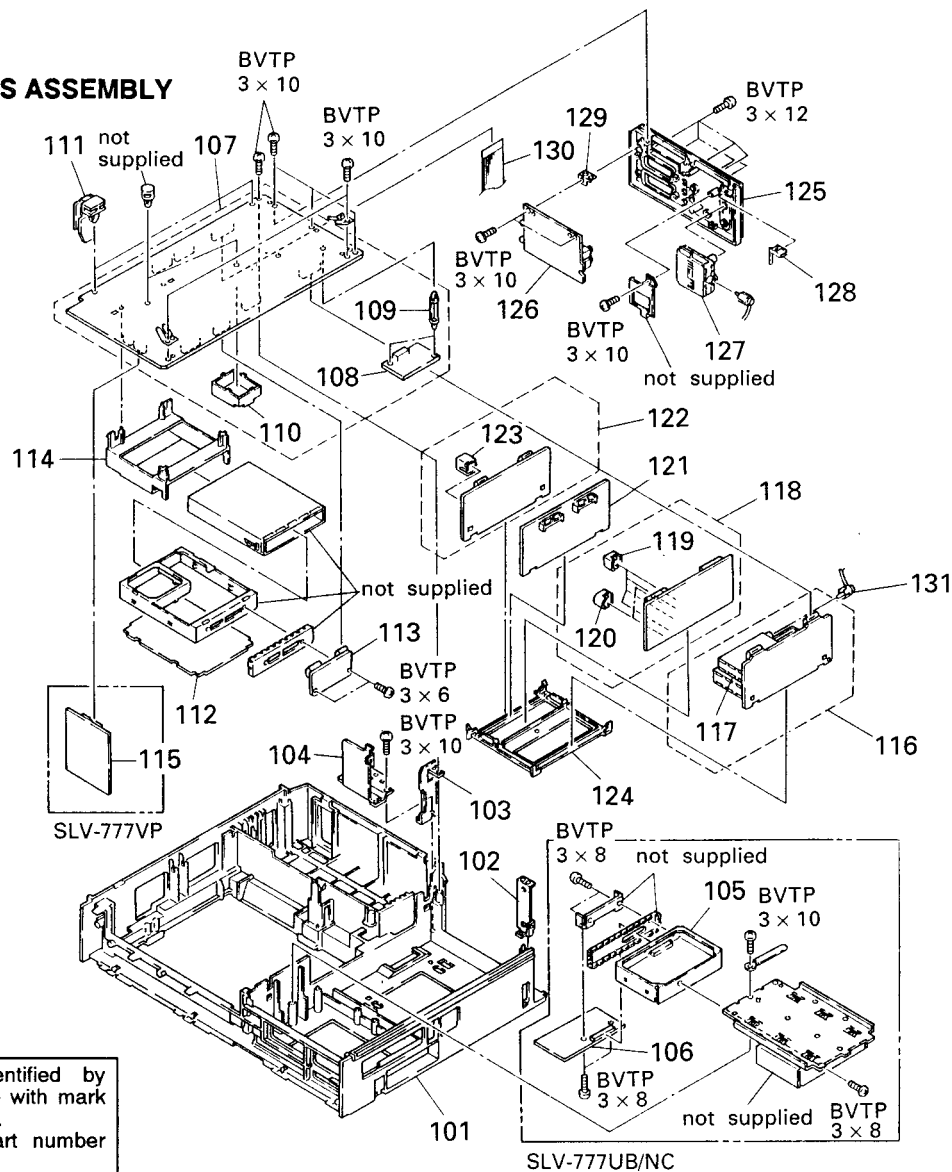
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	-	COVER, UPPER (SLV-777AS)		18	X-3940-123-1	PANEL ASSY, FRONT (SLV-777VP)	
1	3-743-670-51	COVER, UPPER (SLV-777/UB/VP/NC)		18	X-3940-124-1	PANEL ASSY, FRONT (SLV-777NC)	
2	3-710-901-21	SCREW (3X8), TAPPING		18	X-3940-126-1	PANEL ASSY, FRONT (SLV-777UB)	
3	3-744-018-01	DIAL, JOG		19	3-743-644-01	COVER, POWER	
4	3-744-019-11	RING, SHUTTLE		20	*3-940-837-01	LABEL, MODEL NUMBER (NO. 2) (SLV-777UB)	
5	1-466-346-31	SWITCH BLOCK, CONTROL		20	*3-940-838-01	LABEL, MODEL NUMBER (NO. 2) (SLV-777)	
6	X-3743-546-1	PLATE ASSY, ORNAMENTAL, DOOR		20	*3-940-839-01	LABEL, MODEL NUMBER (NO. 2) (SLV-777VP)	
7	*1-635-216-11	JS-20 BOARD		20	*3-940-840-01	LABEL, MODEL NUMBER (NO. 2) (SLV-777NC)	
8	*3-743-699-01	PLATE, FULCRUM, DOOR		20	*3-941-294-01	LABEL, MODEL NUMBER (NO. 2) (SLV-777AS)	
9	4-921-277-11	SCREW (B2.6X8), TAPPING, BIND		21	3-743-671-01	PLATE, BOTTOM	
10	4-921-277-21	SCREW (B2.6X12), TAPPING, BIND		22	3-749-328-01	FOOT	
11	3-743-650-01	COVER, POWER LAMP		23	3-940-667-11	FOOT	
12	X-3940-125-1	DOOR ASSY, FRONT		24	*3-744-012-02	RING, GEAR	
13	X-3743-536-1	PLATE (L) ASSY, FULCRUM		25	3-744-068-01	SCREW (2.6), TAPPING	
14	*3-743-640-01	RETAINER, PC BOARD		26	X-3940-177-1	WOOD (R) ASSY, SIDE	
15	*1-635-218-11	TK-12 BOARD (SLV-777/VP/NC/AS)		27	X-3940-178-1	WOOD (L) ASSY, SIDE	
15	*1-635-218-21	TK-12 BOARD (SLV-777UB)		28	3-743-601-01	SCREW, SIDE WOOD	
16	A-6759-487-B	PLATE (R) BLOCK ASSY, FULCRUM		29	1-465-472-11	REMOTE COMMANDER (RMT-V5B)	30, 31
17	9-911-841-17	CUSHION (B)		30	3-749-148-11	COVER, TIMER	
18	X-3940-121-1	PANEL ASSY, FRONT (SLV-777/AS)		31	3-744-080-00	COVER, BATTERY	

5-2. POWER SUPPLY BLOCK ASSEMBLY



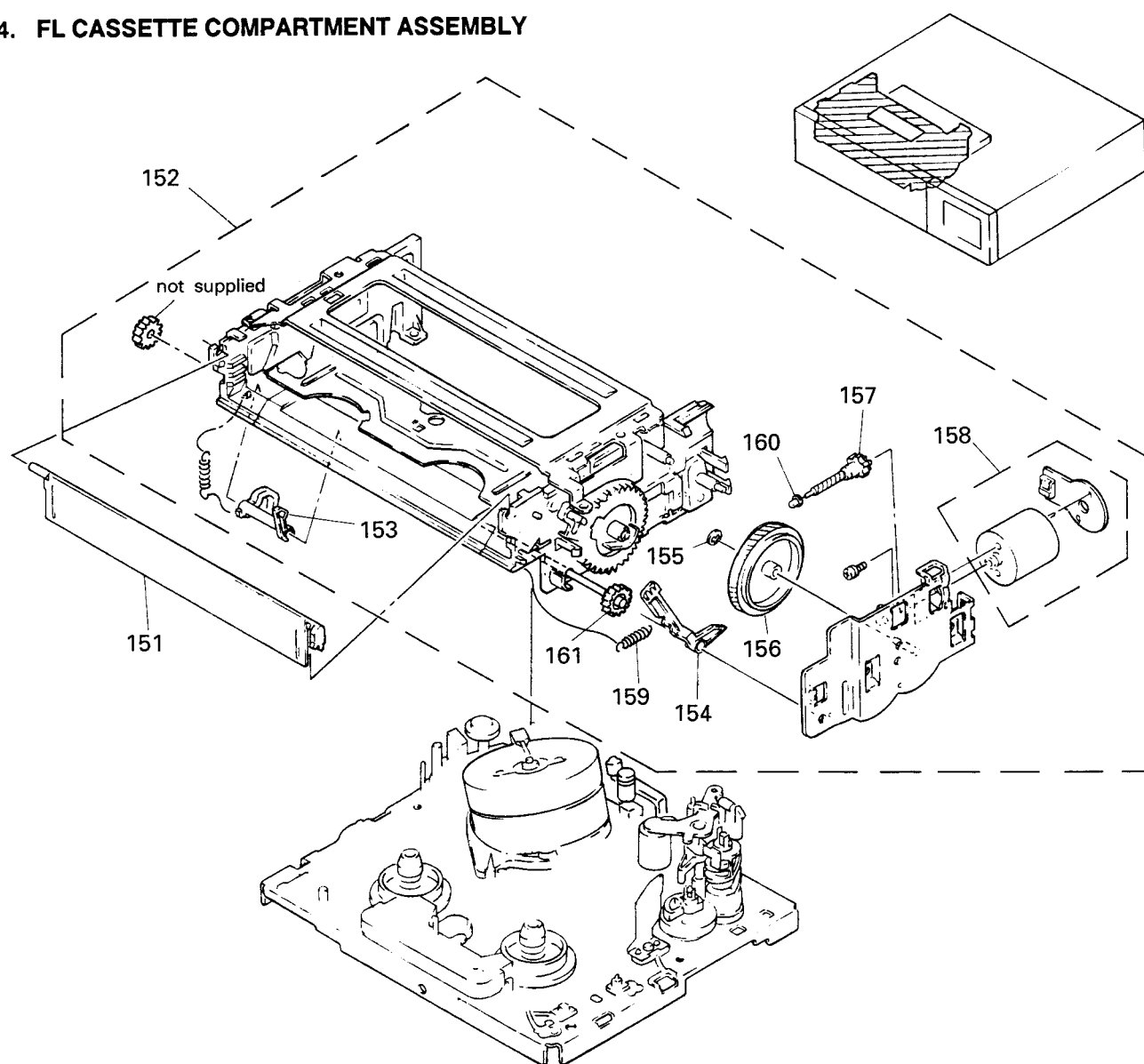
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	*A-6756-034-A	MF-101 BOARD, COMPLETE (SLV-777/NC/AS)	52, 53	61	3-736-055-01	SCREW (3X8), TAPPING	
51	*A-6756-043-A	MF-101 BOARD, COMPLETE (SLV-777VP)	52, 53	62	*A-6727-277-A	YC-65 BOARD, COMPLETE (SLV-777/NC/AS)	63
51	*A-6756-051-A	MF-101 BOARD, COMPLETE (SLV-777UB)	52, 53	62	*A-6727-281-A	YC-65 BOARD, COMPLETE (SLV-777VP)	63
52	*3-749-306-01	PLATE, GROUND, MF		62	*A-6727-290-A	YC-65 BOARD, COMPLETE (SLV-777UB)	63
53	*3-744-056-01	COVER, LED		63	3-729-971-01	COVER, VOLUME	
54	3-743-636-01	KNOB, SLIDE		64	*1-637-558-11	VI-97 BOARD	
55	*A-6756-033-A	MF-94 BOARD, COMPLETE (SLV-777/AS)	56-59	65	3-682-057-21	SPACER (SMALL)	
55	*A-6756-036-A	MF-94 BOARD, COMPLETE (SLV-777NC)	56-59	66	*3-743-641-01	RETAINER (RIGHT), YC	
55	*A-6756-042-A	MF-94 BOARD, COMPLETE (SLV-777VP)	56-59	67	*3-743-643-01	BRACKET (LEFT), POWER	
55	*A-6756-052-A	MF-94 BOARD, COMPLETE (SLV-777UB)	56-59	68	⚠ 1-413-601-11	SWITCHING BLOCK (SLV-777/NC/AS)	69-72
56	1-519-633-11	INDICATION TUBE, FLUORESCENT (ND201)		68	⚠ 1-413-608-11	SWITCHING BLOCK (SLV-777VP)	69-72
57	*3-743-637-01	HOLDER, FL		68	⚠ 1-413-609-11	SWITCHING BLOCK (SLV-777UB)	69-72
58	*1-635-214-31	RM-42 BOARD (SLV-777/VP/NC/AS)		69	*3-743-645-01	LID, UPPER	
58	*1-635-214-43	RM-42 BOARD (SLV-777UB)		70	*3-743-649-11	CASE, MAIN	
59	*3-682-419-51	HOLDER, P.C.B		71	*3-743-646-01	PLATE, BOTTOM (SLV-777/VP/NC/AS)	
60	3-741-948-01	SCREW (3), SPECIAL (+) TAPPING		71	*3-743-646-11	PLATE, BOTTOM (SLV-777UB)	
				72	*3-743-648-11	PANEL, CONNECTOR	

5-3. MAIN BOARDS ASSEMBLY



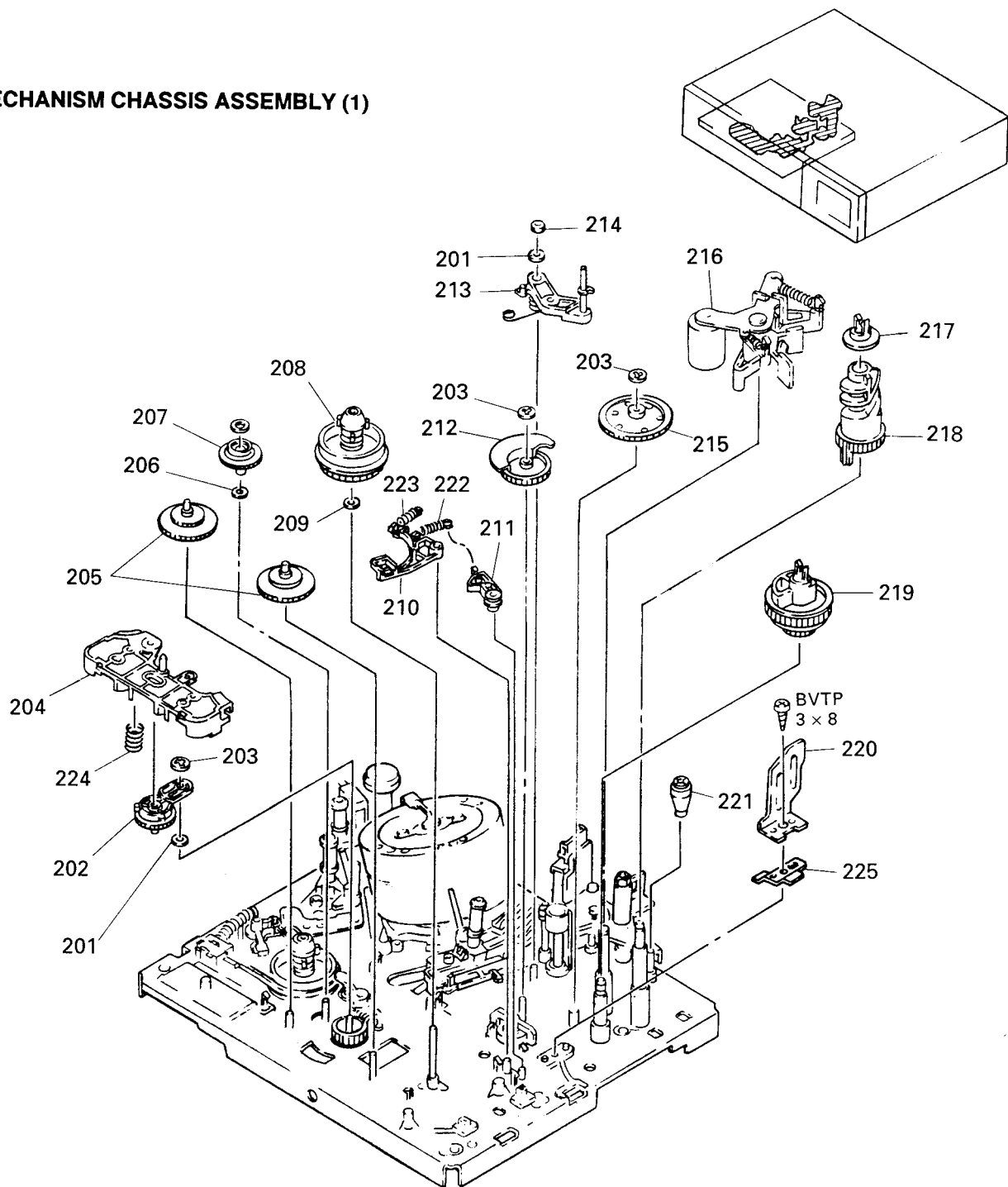
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	*A-6771-254-A	FRAME BLOCK ASSY		117	$\triangle$ 1-465-262-11	TUNER, ET (TU001) (SLV-777UB)	
102	*3-743-676-01	PLATE (RIGHT), GROUND, MA		117	$\triangle$ 1-465-465-11	TUNER, ET (TU001) (SLV-777AS)	
103	*3-743-675-01	PLATE (LEFT), GROUND, MA		118	*A-6713-377-A	HF-9 BOARD, COMPLETE (SLV-777/VP/NC/AS)	
104	*3-743-642-01	BRACKET (RIGHT), POWER					119, 120
105	*A-6721-371-A	NA-7 BOARD, COMPLETE (SLV-777NC)		118	*A-6713-417-A	HF-9 BOARD, COMPLETE (SLV-777UB)	119, 120
105	*A-6721-376-A	NA-7 BOARD, COMPLETE (SLV-777UB)		119	3-729-971-01	COVER, VOLUME	
106	*1-632-333-13	NM-1 BOARD (SLV-777UB/NC)		120	3-738-216-01	COVER, VOLUME	
107	*A-6717-596-A	MA-62 BOARD, COMPLETE (SLV-777/NC/AS)	108-110	121	*A-6727-278-A	PI-20 BOARD, COMPLETE (SLV-777/VP/NC/AS)	
107	*A-6717-597-A	MA-62 BOARD, COMPLETE (SLV-777VP)	108-110	121	*A-6727-291-A	PI-20 BOARD, COMPLETE (SLV-777UB)	
107	*A-6717-600-A	MA-62 BOARD, COMPLETE (SLV-777UB)	108-110	122	*A-6727-279-A	CG-10 BOARD, COMPLETE (SLV-777/NC/AS)	123
108	*1-635-225-11	SI-10 BOARD		122	*A-6727-282-A	CG-10 BOARD, COMPLETE (SLV-777VP)	123
109	*3-682-419-41	HOLDER, P.C.B		122	*A-6727-292-A	CG-10 BOARD, COMPLETE (SLV-777UB)	123
110	*3-743-679-01	CASE, SHIELD, AU		123	*3-738-015-01	COVER, (DIA. 6) CARBON VR	
111	*3-743-678-01	HINGE, PC BOARD		124	*3-743-673-01	HOLDER, PC BOARD	
112	*A-6727-280-A	DG-11 BOARD, COMPLETE (SLV-777/VP/NC/AS)		125	3-940-827-01	TERMINAL BOARD (PAL)	
112	*A-6727-293-A	DG-11 BOARD, COMPLETE (SLV-777UB)		126	*A-6754-198-A	IO-40 BOARD, COMPLETE (SLV-777/VP/NC/AS)	
113	*1-637-536-11	DI-43 BOARD		126	*A-6754-215-A	IO-40 BOARD, COMPLETE (SLV-777UB)	
114	*3-749-334-01	HOLDER, DG		127	$\triangle$ 1-466-347-31	MODULATOR, RF (RFU-2028) (SLV-777UB)	
115	*1-637-444-11	VP-24 BOARD (SLV-777VP)		127	$\triangle$ 1-466-328-31	MODULATOR, RF (RFU-2027) (SLV-777/VP/NC/AS)	
116	*A-6721-369-A	TU-120 BOARD, COMPLETE (SLV-777)	117	128	*3-743-677-01	PLATE, GROUND, RF	
116	*A-6721-370-A	TU-120 BOARD, COMPLETE (SLV-777NC)	117	129	*3-940-828-01	PLATE, GROUND, INPUT OUTPUT	
116	*A-6721-372-A	TU-120 BOARD, COMPLETE (SLV-777VP)	117	130	1-575-746-11	WIRE, FLAT TYPE (22 CORE)	
116	*A-6721-375-A	TU-120 BOARD, COMPLETE (SLV-777UB)	117	131	1-558-924-41	CABLE, PIN	
116	*A-6721-377-A	TU-120 BOARD, COMPLETE (SLV-777AS)	117				
117	$\triangle$ 1-465-260-11	TUNER, ET (TU001) (SLV-777/VP/NC)					

5-4. FL CASSETTE COMPARTMENT ASSEMBLY



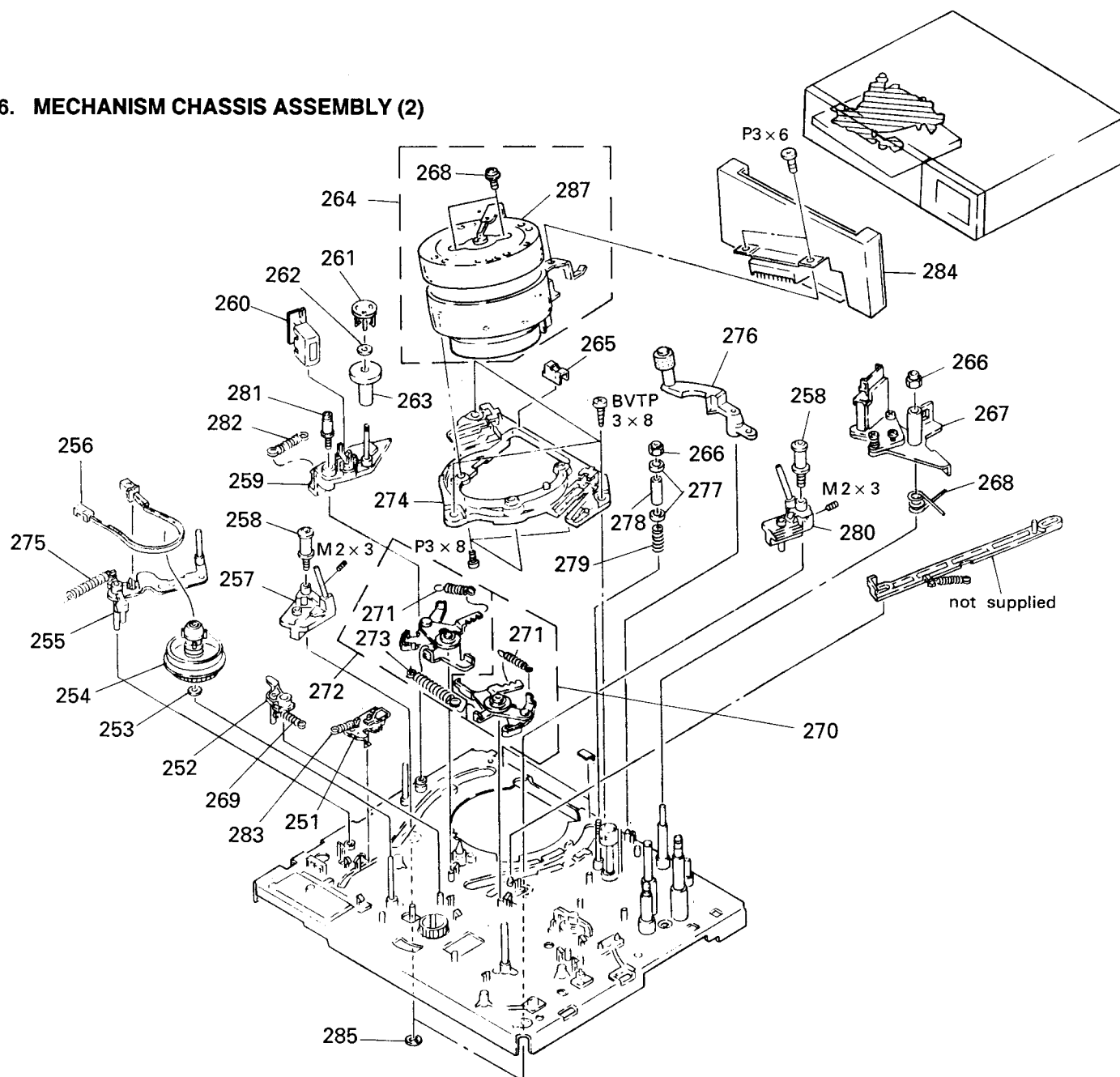
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	X-3940-122-1	DOOR ASSY, FL		157	3-736-100-01	GEAR (FL), WORM	
152	A-6751-426-A	FL BLOCK ASSY (F3)		158	X-3727-784-1	MOTOR ASSY (LOADING) (M904)	
153	3-736-163-01	LEVER, ERASING PROTECTION	153-161	159	3-738-285-01	SPRING, TENSION	
154	3-736-167-01	ARM, DOOR SWITCHING		160	3-716-144-02	RETAINER, WORM	
155	3-696-510-01	WASHER (3), STOPPER		161	X-3727-775-2	GEAR (RIGHT) ASSY, MIDWAY	
156	3-736-164-01	WHEEL (FL), WORM					

5-5. MECHANISM CHASSIS ASSEMBLY (1)



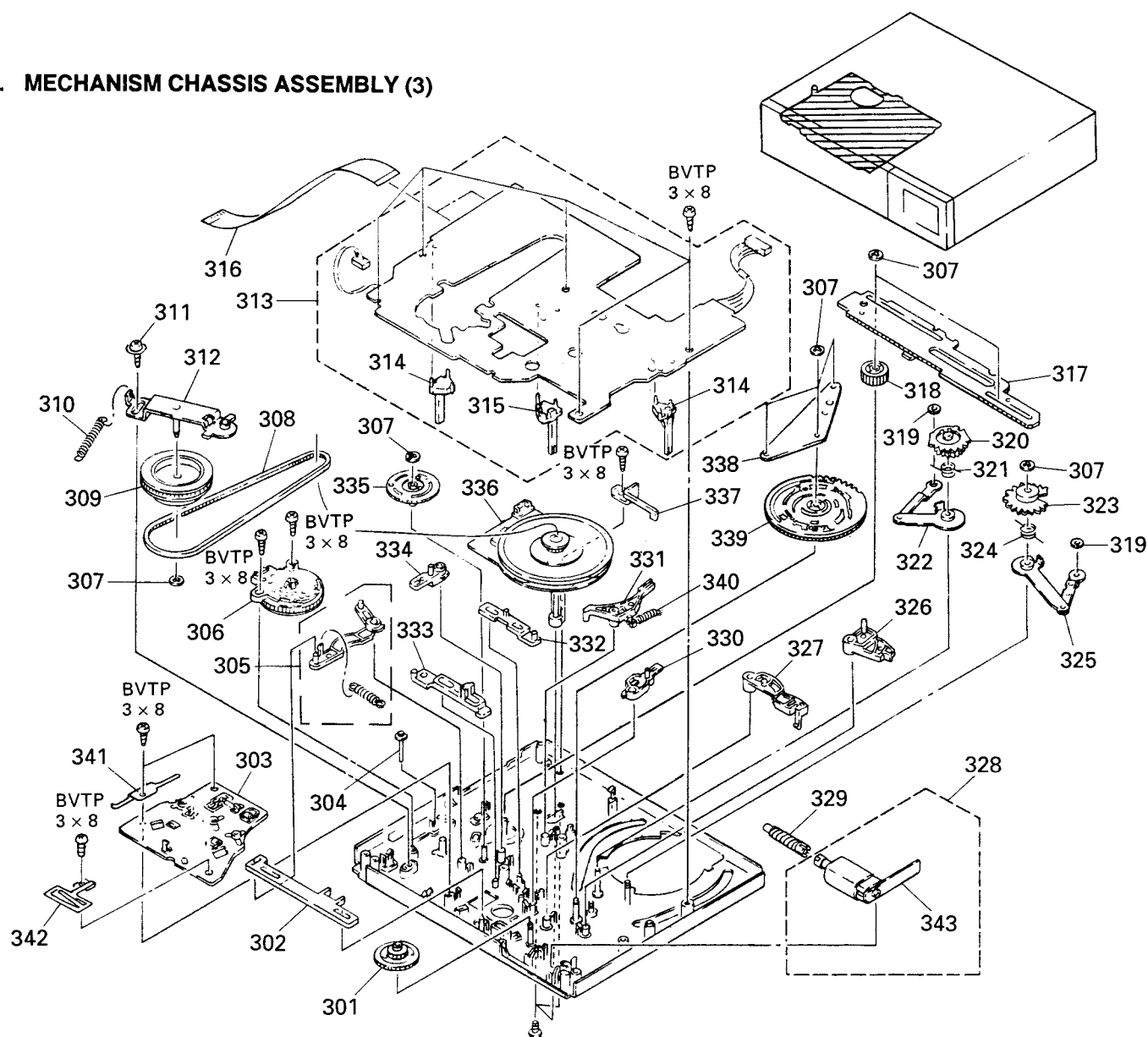
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	3-701-438-11	WASHER, 2.5		215	3-736-116-01	GEAR, COMMUNICATION	
202	X-3727-776-1	ARM ASSY, PENDULUM		216	X-3727-770-1	PINCH ROLLER BLOCK ASSY	
203	3-669-595-00	WASHER (2), STOPPER		217	3-736-111-01	STOPPER	
204	3-736-172-02	RELEASE, LOCK, REEL		218	3-736-136-01	CAM, ELEVATOR	
205	X-3727-795-1	GEAR ASSY, RELAY		219	3-736-135-01	GEAR, PRESS CAM	
206	3-736-074-01	RETAINER (SMALL), THRUST		220	3-736-109-01	PLATE, OPEN, LID	
207	3-736-037-01	GEAR, REW		221	3-738-250-01	SCREW, AC ADJUSTMENT	
208	X-3727-798-1	TABLE ASSY, REEL		222	3-736-025-01	SPRING (REV BRAKE), TENSION	
209	3-738-212-21	RETAINER, THRUST, REEL TABLE		223	3-736-024-01	SPRING, TENSION	
210	X-3733-335-1	BRAKE ASSY (AT), T SOFT		224	3-736-020-11	SPRING, COMPRESSION	
211	3-736-105-01	ARM, REV BRAKE		225	3-744-227-01	SPRING (ATOM), FL GROUND	
212	3-736-143-01	GEAR, RVS CAM		226	3-736-069-01	RETAINER, SPRING	
213	X-3729-911-1	ARM ASSY, RVS					
214	3-736-740-01	NUT (M2X0.25), NYLON					

5-6. MECHANISM CHASSIS ASSEMBLY (2)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	A-6759-483-A	TAKE-UP BLOCK ASSY (AT), S		271	3-738-220-01	SPRING (MAIN BRAKE 2), TENSION	
252	3-736-075-01	BRAKE, S SOFT		272	X-3733-336-2	BRAKE ASSY (2) (AT), S	271
253	3-738-212-21	RETAINER, THRUST, REEL TABLE		273	3-738-221-01	SPRING (MAIN BRAKE 1), TENSION	
254	X-3729-935-3	TABLE ASSY, REEL, SUPPLY		274	X-3727-791-2	BASE ASSY, DRUM	
255	3-736-151-11	ARM (POM), TENSION REGULATOR		275	3-733-389-11	SPRING, TENSION	
256	X-3727-797-1	BAND ASSY, TENSION REGULATOR		276	A-6747-267-A	ARM BLOCK ASSY (S), C ROLLER	
257	X-3727-786-1	SHUTTLE (LEFT) ASSY		277	3-736-733-01	FLANGE, 7 GUIDE	
258	X-3733-301-1	ROLLER ASSY, GUIDE		278	3-736-730-01	SLEEVE, #7 GUIDE	
259	X-3727-767-1	BASE ASSY, STABILIZER		279	3-749-099-01	SPRING (#7 GUIDE), COMPRESSION	
260	1-543-647-11	HEAD, FE		280	X-3727-787-1	SHUTTLE (RIGHT) ASSY	
261	3-736-082-01	RETAINER, TS THRUST		281	X-3727-788-1	ROLLER ASSY, GUIDE, #2	
262	3-741-925-01	RING, RETAINING		282	3-736-745-01	SPRING	
263	X-3727-771-1	STABILIZER ASSY, TAPE		283	3-738-284-01	SPRING, TENSION	
264	1-550-535-11	DRUM ASSY (DZH-17A-R)	286, 287	284	*A-6727-137-A	RP-63 BOARD, COMPLETE (SLV-777/VP/NC/AS)	
265	3-736-795-01	STOPPER		284	*A-6727-294-A	RP-63 BOARD, COMPLETE (SLV-777UB)	
266	3-736-041-01	NUT (N3), NYLON		285	3-736-073-01	SLIDER, POLYETHYLENE	
267	A-6761-129-A	HEAD BLOCK ASSY, ACE		286	2-643-205-01	SCREW (PSW) 3X8	
268	3-736-042-01	SPRING, TORSION		287	1-550-536-11	DRUM ASSY, ROTARY UPPER (DZR-17-R)	
269	3-736-047-01	SPRING (S SOFT), TENSION					
270	X-3729-926-1	BRAKE ASSY (2), T	271				

5-7. MECHANISM CHASSIS ASSEMBLY (3)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	3-736-015-01	WHEEL (CAM), WORM		323	3-736-147-01	GEAR (LEFT), THREADING	
302	3-736-158-01	PLATE, SLIDE, PENDULUM		324	3-736-040-01	SPRING (LEFT), TORSION	
303	A-6739-084-A	CHASSIS BLOCK ASSY, SUB		325	X-3727-778-1	ARM (LEFT) ASSY, THREADING	
304	3-736-091-01	PIN, SWITCH					
305	X-3729-924-1	ARM, PENDULUM FUNCTION		326	3-736-142-01	ARM, TENSION REGULATOR FUNCTION	
306	1-571-920-11	SWITCH, ROTARY		327	3-736-140-01	ARM, S TAKE-UP	
307	3-669-595-00	WASHER (2), STOPPER		328	X-3733-302-1	MOTOR ASSY, CAM (M903)	343
308	3-736-013-01	BELT, TIMING		329	3-733-395-01	GEAR (CAM), WORM	
309	X-3727-782-1	PULLEY ASSY		330	3-733-397-01	ARM, BRAKE FUNCTION	
310	3-736-089-01	SPRING, TENSION					
311	3-733-386-01	SCREW (3X8), WASHER		331	X-3733-338-1	BRAKE ASSY (AT), CAP	
312	X-3727-761-1	ARM ASSY, ADJUSTMENT		332	3-733-398-01	PLATE, SLIDE, BRAKE	
313	*A-6754-218-A	MD-49 BOARD, COMPLETE	314, 315	333	3-736-103-01	PLATE, SLIDE, LIMITER	
314	8-729-926-31	PHOTO TRANSISTOR PT483F1S (Q001, Q002)		334	3-736-016-01	ARM, LIMITER FUNCTION	
315	8-719-985-00	DIODE GL451VS1 (LED) (D001)		335	3-736-170-01	GEAR, RKB CAM	
316	1-575-745-11	WIRE, FLAT TYPE (19 CORE)		336	8-835-394-01	MOTOR, DC U-26F (CAPSTAN) (M902)	
317	3-736-177-01	PLATE, SLIDE, MODE		337	3-736-744-01	RETAINER, ROTOR	
318	3-733-394-01	GEAR, RVS RELAY		338	3-733-396-01	HOLDER, CAM GEAR	
319	3-736-073-01	SLIDER, POLYETHYLENE		339	3-736-176-01	GEAR, CAM	
320	3-736-148-01	GEAR (RIGHT), THREADING		340	3-738-237-01	SPRING (CAP BRAKE), TENSION	
321							
322	3-736-092-01	SPRING (RIGHT), TORSION		341	3-741-950-01	SPRING (AT), LEAF, SC GROUND	
323	X-3727-777-1	ARM (RIGHT) ASSY, THREADING		342	*3-744-024-01	PLATE, GROUND, MD	
				343	*1-633-460-11	CA-41 BOARD	

SECTION 6

ELECTRICAL PARTS LIST

HF-9

NOTE:

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

• Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

• Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

RESISTORS

All resistors are in ohms

METAL: Metal-film resistor

METAL OXIDE: Metal Oxide-film resistor

F: nonflammable

• -XX, -X mean standardized parts, so they may have some difference from the original one.

SEMICONDUCTORS

In each case, U: μ , for example:

UA...: μ A..., UPA...: μ PA..., UPB...: μ PB..., UPC...: μ PC..., UPD...: μ PD...

CAPACITORS

MF: μ F, PF: μ F

COILS

MMH: mH, UH: μ H

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*A-6713-417-A	HF-9 BOARD, COMPLETE (SLV-777UB)			C051	1-130-483-00	MYLAR 0.01MF 5% 50V	
	***** (Ref. No. 1000 series)			C052	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
*A-6713-377-A	HF-9 BOARD, COMPLETE (SLV-777/AS/VP/NC)			C053	1-123-333-00	ELECT 100MF 20% 16V	
	***** (Ref. No. 1000 series)			C054	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
3-738-216-01	COVER, VOLUME			C055	1-123-369-00	ELECT 4.7MF 20% 25V	
3-729-971-01	COVER, VOLUME			C056	1-123-369-00	ELECT 4.7MF 20% 25V	
CAPACITOR				C057	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C001	1-124-239-00	ELECT 6.8MF 20% 16V		C058	1-130-471-00	MYLAR 0.001MF 5% 50V	
C002	1-130-487-00	MYLAR 0.022MF 5% 50V		C059	1-123-380-00	ELECT 1MF 20% 50V	
C003	1-123-369-00	ELECT 4.7MF 20% 25V		C060	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C004	1-130-475-00	MYLAR 0.0022MF 5% 50V		C061	1-126-101-11	ELECT 100MF 20% 16V	
C005	1-123-321-00	ELECT 220MF 20% 16V		C065	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C006	1-123-875-11	ELECT 10MF 20% 50V		CONNECTOR			
C007	1-130-483-00	MYLAR 0.01MF 5% 50V		CN001	*1-563-258-11	SOCKET, CONNECTOR 15P	
C009	1-123-381-00	ELECT 2.2MF 20% 50V		CN002	*1-563-258-11	SOCKET, CONNECTOR 15P	
C011	1-123-356-00	ELECT 10MF 20% 25V		DIODE			
C012	1-123-356-00	ELECT 10MF 20% 25V		D001	8-719-911-19	DIODE 1SS119	
C013	1-126-101-11	ELECT 100MF 20% 16V		D002	8-719-911-19	DIODE 1SS119	
C014	1-126-157-11	ELECT 10MF 20% 16V		D003	8-719-104-34	DIODE 1S2835	
C015	1-126-157-11	ELECT 10MF 20% 16V		FILTER			
C016	1-124-791-11	ELECT 1MF 20% 50V		FL001	1-236-569-11	BPF (1.7MHZ)	
C017	1-124-257-00	ELECT 2.2MF 20% 50V		FL002	1-236-570-11	BPF (1.3MHZ)	
C018	1-126-101-11	ELECT 100MF 20% 16V		IC			
C019	1-123-356-00	ELECT 10MF 20% 25V		IC001	8-759-420-18	IC AN3972FC	
C020	1-123-356-00	ELECT 10MF 20% 25V		IC002	8-759-420-15	IC AN3932S	
C022	1-123-381-00	ELECT 2.2MF 20% 50V		IC003	8-759-982-21	IC RC78L05A	
C024	1-130-483-00	MYLAR 0.01MF 5% 50V		IC004	8-759-924-46	IC BA4560F	
C025	1-123-875-11	ELECT 10MF 20% 50V		IC005	8-759-946-44	IC TK15120M	
C026	1-123-321-00	ELECT 220MF 20% 16V		IC006	8-759-946-44	IC TK15120M	
C027	1-130-475-00	MYLAR 0.0022MF 5% 50V		RESISTOR			
C028	1-123-369-00	ELECT 4.7MF 20% 25V		R001	1-249-417-11	METAL 1K 5% 1/4W	
C029	1-130-487-00	MYLAR 0.022MF 5% 50V		R002	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
C030	1-124-239-00	ELECT 6.8MF 20% 16V		R003	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
C031	1-126-163-11	ELECT 4.7MF 20% 25V		R004	1-214-723-00	CARBON 560 5% 1/4W	
C032	1-126-301-11	ELECT 1MF 20% 50V		R005	1-216-047-00	METAL GLAZE 820 5% 1/10W	
C033	1-123-380-00	ELECT 1MF 20% 50V		R006	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
C034	1-130-471-00	MYLAR 0.001MF 5% 50V		R007	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
C035	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V		R008	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
C036	1-123-369-00	ELECT 4.7MF 20% 25V		R009	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C037	1-123-369-00	ELECT 4.7MF 20% 25V		R011	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
C038	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V					
C041	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V					
C042	1-163-038-00	CERAMIC CHIP 0.1MF 25V					
C043	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V					
C044	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V					
C045	1-130-493-00	MYLAR 0.068MF 5% 50V					
C050	1-163-125-00	CERAMIC CHIP 220PF 5% 50V					

HF-9 MA-62

Ref. No.	Part No.	Description	Remark
R012	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R013	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R014	1-216-047-00	METAL GLAZE 820 5%	1/10W
R015	1-214-723-00	CARBON 560 5%	1/4W
R016	1-216-075-00	METAL GLAZE 12K 5%	1/10W
R017	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R018	1-249-417-11	METAL 1K 5%	1/4W
R019	1-216-043-00	METAL GLAZE 560 5%	1/10W
R020	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R021	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
R022	1-216-093-00	METAL GLAZE 68K 5%	1/10W
R023	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
R024	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
R025	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R026	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R027	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
R028	1-216-076-00	METAL GLAZE 13K 5%	1/10W
R029	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R032	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R033	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R034	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R035	1-249-427-11	CARBON 6.8K 5%	1/4W
R036	1-249-427-11	CARBON 6.8K 5%	1/4W
R037	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R041	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R042	1-249-428-11	CARBON 8.2K 5%	1/4W
R043	1-249-428-11	CARBON 8.2K 5%	1/4W
R044	1-249-430-11	CARBON 12K 5%	1/4W
R045	1-249-430-11	CARBON 12K 5%	1/4W
R048	1-249-441-11	CARBON 100K 5%	1/4W
R049	1-249-441-11	CARBON 100K 5%	1/4W
R068	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R201	1-216-295-00	METAL GLAZE 0 5%	1/10W
R202	1-216-295-00	METAL GLAZE 0 5%	1/10W
R203	1-216-295-00	METAL GLAZE 0 5%	1/10W
R301	1-216-296-00	METAL GLAZE 0 5%	1/8W
R302	1-216-296-00	METAL GLAZE 0 5%	1/8W
R303	1-216-296-00	METAL GLAZE 0 5%	1/8W
VARIABLE RESISTOR			
RV002	1-230-522-11	RES. ADJ. METAL GLAZE 4.7K	
RV003	1-238-167-11	RES. ADJ. CARBON 22K	
RV004	1-238-167-11	RES. ADJ. CARBON 22K	
RV005	1-230-498-11	RES. ADJ. CARBON 47K	
RV006	1-230-498-11	RES. ADJ. CARBON 47K	
RV007	1-238-167-11	RES. ADJ. CARBON 22K	
RV008	1-230-522-11	RES. ADJ. METAL GLAZE 4.7K	
RV009	1-238-167-11	RES. ADJ. CARBON 22K	

Ref. No.	Part No.	Description	Remark
*A-6717-597-A	MA-62 BOARD, COMPLETE (SLV-777/VP)	***** (Ref.No. 7000 series)	
*A-6717-600-A	MA-62 BOARD, COMPLETE (SLV-777UB)	***** (Ref.No. 7000 series)	
*A-6717-596-A	MA-62 BOARD, COMPLETE (SLV-777/AS/NC)	***** (Ref.No. 7000 series)	
*9-911-839-99	RETAINER (B), MICROPHONE		
*3-682-419-41	HOLDER, P. C. B		
*3-743-679-01	CASE, SHIELD, AU		
3-831-441-99	SPACER		
CAPACITOR			
C101	1-123-875-11	ELECT 10MF	20% 50V
C102	1-123-875-11	ELECT 10MF	20% 50V
C103	1-123-875-11	ELECT 10MF	20% 50V
C104	1-123-875-11	ELECT 10MF	20% 50V
C200	1-162-294-31	CERAMIC 0.001MF	10% 50V
C231	1-124-477-11	ELECT 47MF	20% 16V
C232	1-124-471-00	ELECT 1000MF	20% 6.3V
C233	1-124-477-11	ELECT 47MF	20% 16V
C234	1-124-443-00	ELECT 100MF	20% 10V
C235	1-124-471-00	ELECT 1000MF	20% 6.3V
C250	1-109-675-11	MICA 120PF	5% 500V
C251	1-124-126-00	ELECT 47MF	20% 10V
C252	1-164-083-11	CERAMIC 680PF	10% 50V
C254	1-102-123-00	CERAMIC 0.0033MF	10% 50V
C255	1-124-791-11	ELECT 1MF	20% 50V
C256	1-124-902-00	ELECT 0.47MF	20% 50V
C257	1-124-126-00	ELECT 47MF	20% 10V
C258	1-130-484-00	MYLAR 0.012MF	5% 50V
C259	1-126-160-11	ELECT 1MF	20% 50V
C261	1-126-233-11	ELECT 22MF	20% 25V
C262	1-124-126-00	ELECT 47MF	20% 10V
C264	1-102-978-00	CERAMIC 220PF	5% 50V
C265	1-124-791-11	ELECT 1MF	20% 50V
C266	1-124-126-00	ELECT 47MF	20% 10V
C268	1-124-791-11	ELECT 1MF	20% 50V
C269	1-126-160-11	ELECT 1MF	20% 50V
C270	1-124-791-11	ELECT 1MF	20% 50V
C271	1-161-019-91	CERAMIC 0.033MF	10% 25V
C273	1-161-056-00	CERAMIC 0.027MF	10% 25V
C274	1-126-163-11	ELECT 4.7MF	20% 50V
C275	1-124-126-00	ELECT 47MF	20% 10V
C276	1-164-087-11	CERAMIC 0.0015MF	10% 50V
C277	1-161-051-00	CERAMIC 0.01MF	10% 25V
C278	1-136-561-11	FILM 0.0068MF	10% 400V
C280	1-130-483-00	MYLAR 0.01MF	5% 50V
C281	1-161-056-00	CERAMIC 0.027MF	10% 25V

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C282	1-124-126-00	ELECT	47MF	20%	10V		
C284	1-164-087-11	CERAMIC	0.0015MF	10%	50V		
C285	1-162-290-31	CERAMIC	470PF	10%	50V		
C295	1-161-379-00	CERAMIC	0.01MF	30%	16V		
C298	1-161-379-00	CERAMIC	0.01MF	30%	16V		
C304	1-123-875-11	ELECT	10MF	20%	50V		
C305	1-123-875-11	ELECT	10MF	20%	50V		
C306	1-123-875-11	ELECT	10MF	20%	50V		
C401	1-123-875-11	ELECT	10MF	20%	50V		
C402	1-124-791-11	ELECT	1MF	20%	50V		
C403	1-123-875-11	ELECT	10MF	20%	50V		
C404	1-161-043-00	CERAMIC	0.0022MF	20%	16V		
C405	1-124-499-11	ELECT	1MF	20%	50V		
C406	1-124-126-00	ELECT	47MF	20%	10V		
C407	1-164-070-11	CERAMIC	100PF	5%	50V		
C408	1-164-096-11	CERAMIC	0.01MF		50V		
C409	1-164-093-11	CERAMIC	0.0047MF	10%	25V		
C410	1-164-096-11	CERAMIC	0.01MF		50V		
C411	1-124-126-00	ELECT	47MF	20%	10V		
C413	1-130-483-00	MYLAR	0.01MF	5%	50V		
C414	1-102-121-00	CERAMIC	0.0022MF	10%	50V		
C415	1-102-947-00	CERAMIC	10PF	0.5PF	50V		
C416	1-162-847-11	CERAMIC	0.047MF	20%	16V		
C422	1-124-126-00	ELECT	47MF	20%	10V		
C423	1-126-233-11	ELECT	22MF	20%	25V		
C425	1-130-487-00	MYLAR	0.022MF	5%	50V		
C426	1-124-925-11	ELECT	2.2MF	20%	50V		
C427	1-130-489-00	MYLAR	0.033MF	5%	50V		
C428	1-130-491-00	MYLAR	0.047MF	5%	50V		
C431	1-162-290-31	CERAMIC	470PF	10%	50V		
C501	1-164-096-11	CERAMIC	0.01MF		50V		
C504	1-123-875-11	ELECT	10MF	20%	50V		
C505	1-124-472-11	ELECT	470MF	20%	10V		
C506	1-123-875-11	ELECT	10MF	20%	50V		
C507	1-101-006-00	CERAMIC	0.047MF		50V		
C508	1-124-478-11	ELECT	100MF	20%	25V		
C509	1-102-953-00	CERAMIC	18PF	5%	50V		
C510	1-102-953-00	CERAMIC	18PF	5%	50V		
C515	1-164-096-11	CERAMIC	0.01MF		50V		
C519	1-164-096-11	CERAMIC	0.01MF		50V		
C520	1-162-211-31	CERAMIC	33PF	5%	50V		
C522	1-164-068-11	CERAMIC	82PF	5%	50V		
C523	1-164-096-11	CERAMIC	0.01MF		50V		
C524	1-124-463-00	ELECT	0.1MF	20%	50V		
C525	1-162-290-31	CERAMIC	470PF	10%	50V		
C531	1-124-925-11	ELECT	2.2MF	20%	50V		
C536	1-161-772-11	CERAMIC	0.1MF	20%	16V		
C537	1-123-875-11	ELECT	10MF	20%	50V		
C538	1-124-478-11	ELECT	100MF	20%	25V		
C539	1-102-978-00	CERAMIC	220PF	5%	50V		
C541	1-161-379-00	CERAMIC	0.01MF	30%	25V		
C542	1-124-477-11	ELECT	47MF	20%	25V		
C543	1-162-849-11	CERAMIC	0.068MF	20%	16V		
C544	1-102-074-00	CERAMIC	0.001MF	10%	50V		
C545	1-102-074-00	CERAMIC	0.001MF	10%	50V		
C802	1-123-875-11	ELECT	10MF	20%	50V		
C809	1-123-875-11	ELECT	10MF	20%	50V		
C811	1-123-875-11	ELECT	10MF	20%	50V		
C812	1-124-927-11	ELECT	4.7MF	20%	50V		
C813	1-124-791-11	ELECT	1MF	20%	50V		
C814	1-102-973-00	CERAMIC	100PF	10%	50V		
C815	1-162-211-31	CERAMIC	33PF	5%	50V		
C816	1-123-875-11	ELECT	10MF	20%	50V		
C818	1-161-379-00	CERAMIC	0.01MF	30%	25V		
C818	1-161-379-00	CERAMIC	0.01MF	30%	16V		
C820	1-162-835-11	CERAMIC	0.0047MF	10%	16V		
C821	1-164-085-11	CERAMIC	0.001MF	10%	50V		
C838	1-126-157-11	ELECT	10MF	20%	16V		
C840	1-126-157-11	ELECT	10MF	20%	16V		
C841	1-126-157-11	ELECT	10MF	20%	16V		
C842	1-126-157-11	ELECT	10MF	20%	16V		
C844	1-164-096-11	CERAMIC	0.01MF		50V		
C846	1-164-096-11	CERAMIC	0.01MF		50V		
CONNECTOR							
CN004	1-563-596-11	CONNECTOR, FLEXIBLE 19P					
CN007	1-563-596-11	CONNECTOR, FLEXIBLE 19P					
CN511	1-568-093-11	CONNECTOR (PLUG) 20P					
CN512	1-568-094-11	CONNECTOR (PLUG) 22P					
CN513	*1-506-470-11	PIN, CONNECTOR 5P					
CN514	1-506-469-11	PIN, CONNECTOR 4P					
CN516	*1-568-783-11	PIN, CONNECTOR 6P					
CN517	*1-568-783-31	PIN, CONNECTOR 6P					
CN521	1-568-089-11	CONNECTOR (PLUG) 12P					
CN522	1-568-087-11	CONNECTOR (PLUG) 8P					
CN531	1-506-472-11	PIN, CONNECTOR 7P					
CN532	*1-568-783-11	PIN, CONNECTOR 6P					
CN541	1-506-478-11	PIN, CONNECTOR 13P					
CN542	*1-568-787-11	PIN, CONNECTOR 10P					
CN551	*1-568-088-11	CONNECTOR (PLUG) 10P					
CN552	1-568-089-11	CONNECTOR (PLUG) 12P					
CN553	1-506-470-11	PIN, CONNECTOR 5P					
CN561	1-569-695-21	CONNECTOR, BOARD TO BOARD 17P					
CN562	1-569-696-21	CONNECTOR, BOARD TO BOARD 19P					
CN571	*1-506-744-11	PIN, CONNECTOR 15P					
CN572	*1-506-744-11	PIN, CONNECTOR 15P					
CN573	*1-560-892-00	PIN, CONNECTOR 4P					
CN574	*1-560-891-00	PIN, CONNECTOR 3P					
CN582	1-563-599-11	CONNECTOR, FLEXIBLE 22P					
CN583	1-569-763-11	CONNECTOR, BOARD TO BOARD 30P					
CN584	1-569-763-11	CONNECTOR, BOARD TO BOARD 30P					

When indicating parts by reference number, please include the board name.

MA-62

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
CN585	1-568-087-11	CONNECTOR (PLUG) 8P				<u>JUMPER</u>	
CN586	1-568-087-11	CONNECTOR (PLUG) 8P		JW062	1-410-316-11	INDUCTOR 1UH	
CN587	1-506-468-11	PIN, CONNECTOR 3P		JW168	1-123-875-11	ELECT 10MF	20% 50V
CN591	1-566-119-11	CONNECTOR, BOARD TO BOARD 6P (SLV-777VP)				<u>COIL</u>	
CN594	1-566-824-11	PIN, CONNECTOR (PC BOARD) 3P (SLV-777VP)		L201	1-408-409-00	INDUCTOR 10UH	
CN801	1-569-761-11	CONNECTOR, BOARD TO BOARD 20P		L202	1-408-409-00	INDUCTOR 10UH	
		<u>DIODE</u>		L210	1-410-521-11	INDUCTOR 100UH	
D401	8-719-911-19	DIODE 1SS119		L213	1-410-521-11	INDUCTOR 100UH	
D402	8-719-911-19	DIODE 1SS119		L251	1-410-067-21	INDUCTOR 4.7MMH	
D403	8-719-911-19	DIODE 1SS119		L252	1-412-092-11	INDUCTOR, SMALL TYPE	
D404	8-719-911-19	DIODE 1SS119		L253	1-410-687-11	INDUCTOR 1.2MMH	
D409	8-719-101-50	DIODE RD5.1E-L2		L254	1-408-426-00	INDUCTOR 270UH	
D410	8-719-911-19	DIODE 1SS119		L256	8-719-911-19	DIODE 1SS119	
D501	8-719-913-44	DIODE ERA82-004		L400	1-410-509-11	INDUCTOR 10UH	
D502	8-719-911-19	DIODE 1SS119		L501	1-408-413-00	INDUCTOR 22UH	
D505	8-719-911-19	DIODE 1SS119		L502	1-408-413-00	INDUCTOR 22UH	
D508	8-719-101-47	DIODE RD4.7E-L2		L503	1-408-413-00	INDUCTOR 22UH	
D516	8-719-911-19	DIODE 1SS119		L504	1-410-501-11	INDUCTOR 2.2UH	
D517	8-719-911-19	DIODE 1SS119		L505	1-410-501-11	INDUCTOR 2.2UH	
D518	8-719-200-82	DIODE 11ES2				<u>IC LINK</u>	
D519	8-719-109-93	DIODE RD6.2ES-B2		PS202	1-532-605-00	LINK, IC (ICP-N10)	
D703	8-719-911-19	DIODE 1SS119				<u>TRANSISTOR</u>	
D704	8-719-911-19	DIODE 1SS119		Q101	8-729-920-70	TRANSISTOR 2SC1740S-QR	
D801	8-719-911-19	DIODE 1SS119		Q102	8-729-920-70	TRANSISTOR 2SC1740S-QR	
D802	8-719-911-19	DIODE 1SS119		Q203	8-729-920-68	TRANSISTOR 2SA933S-QR	
D803	8-719-911-19	DIODE 1SS119		Q204	8-729-920-68	TRANSISTOR 2SA933S-QR	
D804	8-719-911-19	DIODE 1SS119		Q251	8-729-102-14	TRANSISTOR 2SD1021	
D805	8-719-911-19	DIODE 1SS119		Q253	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D806	8-719-911-19	DIODE 1SS119		Q254	8-729-140-96	TRANSISTOR 2SD774-34	
D807	8-719-911-19	DIODE 1SS119		Q301	8-729-920-68	TRANSISTOR 2SA933S-QR	
D999	8-719-911-19	DIODE 1SS119TG		Q302	8-729-920-68	TRANSISTOR 2SA933S-QR	
		<u>IC</u>		Q401	8-729-920-70	TRANSISTOR 2SC1740S-QR	
IC251	8-759-805-20	IC LA7297		Q403	8-729-115-10	TRANSISTOR 2SK105A-10	
IC401	8-759-000-49	IC MC14066BCP		Q404	8-729-920-70	TRANSISTOR 2SC1740S-QR	
IC402	8-759-632-58	IC M52435P		Q405	8-729-900-89	TRANSISTOR DTC144ES	
IC403	8-759-008-70	IC LM358N		Q410	8-729-900-65	TRANSISTOR DTA144ES	
IC404	8-759-981-85	IC RC4556D		Q412	8-729-900-89	TRANSISTOR DTC144ES	
IC406	8-759-008-71	IC LM324N		Q423	8-729-920-70	TRANSISTOR 2SC1740S-QR	
IC501	8-752-815-90	IC CXP80624-009Q		Q428	8-729-920-68	TRANSISTOR 2SA933S-QR	
IC502	8-759-983-45	IC BA6238A		Q430	8-729-900-89	TRANSISTOR DTC144ES	
IC503	8-759-035-36	IC MC68HC05P7		Q431	8-729-920-70	TRANSISTOR 2SC1740S-QR	
IC801	8-759-152-34	IC TC4052BPHB		Q434	8-729-601-47	TRANSISTOR 2SK381-B	
IC802	8-759-923-90	IC BA4560		Q435	8-729-601-47	TRANSISTOR 2SK381-B	
IC803	8-759-208-08	IC TC4052BPHB		Q501	8-729-900-61	TRANSISTOR DTA114ES	
IC804	8-759-923-90	IC BA4560					
IC809	8-759-822-71	IC LA7954					

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q502	8-729-900-61	TRANSISTOR DTA114ES		R261	1-247-895-00	CARBON 470K 5% 1/4W	
Q503	8-729-920-70	TRANSISTOR 2SC1740S-QR		R262	1-249-438-11	CARBON 56K 5% 1/4W	
Q504	8-729-920-70	TRANSISTOR 2SC1740S-QR					
Q505	8-729-920-70	TRANSISTOR 2SC1740S-QR		R263	1-249-432-11	CARBON 18K 5% 1/4W	
Q506	8-729-920-70	TRANSISTOR 2SC1740S-QR		R264	1-249-427-11	CARBON 6.8K 5% 1/4W	
Q507	8-729-900-61	TRANSISTOR DTA114ES		R265	1-249-429-11	CARBON 10K 5% 1/4W	
Q508	8-729-920-70	TRANSISTOR 2SC1740S-QR		R266	1-249-429-11	CARBON 10K 5% 1/4W	
Q514	8-729-920-70	TRANSISTOR 2SC1740S-QR		R267	1-249-429-11	CARBON 10K 5% 1/4W	
Q515	8-729-920-68	TRANSISTOR 2SA933S-QR		R268	1-249-429-11	CARBON 10K 5% 1/4W	
Q516	8-729-900-80	TRANSISTOR DTC114ES		R269	1-249-406-11	CARBON 120 5% 1/4W	
Q517	8-729-920-70	TRANSISTOR 2SC1740S-QR		R270	1-249-422-11	CARBON 2.7K 5% 1/4W	
Q518	8-729-900-89	TRANSISTOR DTC144ES		R272	1-249-414-11	CARBON 560 5% 1/4W	
Q519	8-729-900-65	TRANSISTOR DTA144ES		R273	1-249-427-11	CARBON 6.8K 5% 1/4W	
Q701	8-729-920-70	TRANSISTOR 2SC1740S-QR		R274	1-249-434-11	CARBON 27K 5% 1/4W	
Q801	8-729-900-89	TRANSISTOR DTC144ES		R275	△ 1-249-387-11	CARBON 3.3 5% 1/4W	F
Q802	8-729-900-89	TRANSISTOR DTC144ES		R277	1-249-429-11	CARBON 10K 5% 1/4W	
Q803	8-729-920-68	TRANSISTOR 2SA933S-QR		R278	1-249-425-11	CARBON 4.7K 5% 1/4W	
Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE		R282	1-249-429-11	CARBON 10K 5% 1/4W	
Q805	8-729-920-70	TRANSISTOR 2SC1740S-QR		R283	△ 1-249-387-11	CARBON 3.3 5% 1/4W	F
Q807	△ 8-729-920-70	TRANSISTOR 2SC1740S-QR		R299	1-249-436-11	CARBON 39K 5% 1/4W	
				R305	1-249-417-11	CARBON 1K 5% 1/4W	
				R306	1-249-417-11	CARBON 1K 5% 1/4W	
				R307	1-249-417-11	CARBON 1K 5% 1/4W	
				R308	1-249-417-11	CARBON 1K 5% 1/4W	
				R309	1-249-417-11	CARBON 1K 5% 1/4W	
				R310	1-249-417-11	CARBON 1K 5% 1/4W	
				R401	1-249-429-11	CARBON 10K 5% 1/4W	
				R403	1-249-433-11	CARBON 22K 5% 1/4W	
				R404	1-249-433-11	CARBON 22K 5% 1/4W	
				R405	1-249-433-11	CARBON 22K 5% 1/4W	
				R406	1-249-433-11	CARBON 22K 5% 1/4W	
				R408	1-249-429-11	CARBON 10K 5% 1/4W	
				R411	1-249-429-11	CARBON 10K 5% 1/4W	
				R412	1-249-427-11	CARBON 6.8K 5% 1/4W	
				R413	1-249-441-11	CARBON 100K 5% 1/4W	
				R414	1-247-887-00	CARBON 220K 5% 1/4W	
				R415	1-249-405-11	CARBON 100 5% 1/4W	
				R416	1-247-885-00	CARBON 180K 5% 1/4W	
				R417	1-249-429-11	CARBON 10K 5% 1/4W	
				R418	1-247-889-00	CARBON 270K 5% 1/4W	
				R419	1-249-437-11	CARBON 47K 5% 1/4W	
				R420	1-249-413-11	CARBON 470 5% 1/4W	
				R421	1-249-433-11	CARBON 22K 5% 1/4W	
				R424	1-249-433-11	CARBON 22K 5% 1/4W	
				R425	1-249-437-11	CARBON 47K 5% 1/4W	
				R426	1-249-433-11	CARBON 22K 5% 1/4W	
				R427	1-249-436-11	CARBON 39K 5% 1/4W	
				R428	1-249-429-11	CARBON 10K 5% 1/4W	
				R429	1-249-429-11	CARBON 10K 5% 1/4W	
				R430	1-249-430-11	CARBON 12K 5% 1/4W	
				R431	1-249-431-11	CARBON 15K 5% 1/4W	
				R432	1-249-429-11	CARBON 10K 5% 1/4W	

RESISTOR

R101	1-249-435-11	CARBON	33K 5% 1/4W	
R102	1-249-441-11	CARBON	100K 5% 1/4W	
R103	1-249-417-11	CARBON	1K 5% 1/4W	
R104	1-249-423-11	CARBON	3.3K 5% 1/4W	
R105	1-249-423-11	CARBON	3.3K 5% 1/4W	
R106	1-249-441-11	CARBON	100K 5% 1/4W	
R107	1-249-435-11	CARBON	33K 5% 1/4W	
R108	1-249-417-11	CARBON	1K 5% 1/4W	
R136	1-249-413-11	CARBON	470 5% 1/4W	
R137	1-249-413-11	CARBON	470 5% 1/4W	
R138	△ 1-249-385-11	CARBON	2.2 5% 1/4W	F
R201	1-249-417-11	CARBON	1K 5% 1/4W	
R210	1-249-405-11	CARBON	100 5% 1/4W	
R211	1-249-405-11	CARBON	100 5% 1/4W	
R222	1-249-410-11	CARBON	270 5% 1/4W	
R224	1-249-406-11	CARBON	120 5% 1/4W	
R225	1-249-405-11	CARBON	100 5% 1/4W	
R227	1-249-403-11	CARBON	68 5% 1/4W	
R232	1-247-804-11	CARBON	75 5% 1/4W	
R252	1-249-393-11	CARBON	10 5% 1/4W	
R253	1-249-416-11	CARBON	820 5% 1/4W	
R254	1-249-411-11	CARBON	330 5% 1/4W	
R255	1-247-885-00	CARBON	180K 5% 1/4W	
R256	1-249-429-11	CARBON	10K 5% 1/4W	
R257	1-249-437-11	CARBON	47K 5% 1/4W	
R258	1-249-439-11	CARBON	68K 5% 1/4W	
R259	1-249-419-11	CARBON	1.5K 5% 1/4W	
R260	1-247-903-00	CARBON	1M 5% 1/4W	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

MA-62

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R433	1-249-433-11	CARBON	22K 5% 1/4W	R534	1-249-428-11	CARBON	8. 2K 5% 1/4W
R434	1-249-433-11	CARBON	22K 5% 1/4W	R535	1-249-410-11	CARBON	270 5% 1/4W
R435	1-249-437-11	CARBON	47K 5% 1/4W	R536	1-249-421-11	CARBON	2. 2K 5% 1/4W
R436	1-249-433-11	CARBON	22K 5% 1/4W	R537	1-249-437-11	CARBON	47K 5% 1/4W
R437	1-249-437-11	CARBON	47K 5% 1/4W	R538	1-249-427-11	CARBON	6. 8K 5% 1/4W
R441	1-247-895-00	CARBON	470K 5% 1/4W	R539	1-249-417-11	CARBON	1K 5% 1/4W
R442	1-249-429-11	CARBON	10K 5% 1/4W	R540	1-249-435-11	CARBON	33K 5% 1/4W
R443	1-249-441-11	CARBON	100K 5% 1/4W	R541	1-249-429-11	CARBON	10K 5% 1/4W
R444	1-249-441-11	CARBON	100K 5% 1/4W	R542	1-249-432-11	CARBON	18K 5% 1/4W
R448	1-249-417-11	CARBON	1K 5% 1/4W	R543	1-249-401-11	CARBON	47 5% 1/4W
R449	1-247-885-00	CARBON	180K 5% 1/4W	R548	1-249-436-11	CARBON	39K 5% 1/4W
R450	1-249-417-11	CARBON	1K 5% 1/4W	R552	1-249-429-11	CARBON	10K 5% 1/4W
R452	1-249-425-11	CARBON	4. 7K 5% 1/4W	R553	1-249-417-11	CARBON	1K 5% 1/4W
R453	1-249-429-11	CARBON	10K 5% 1/4W	R555	1-249-441-11	CARBON	100K 5% 1/4W
R454	1-249-415-11	CARBON	680 5% 1/4W	R556	1-249-437-11	CARBON	47K 5% 1/4W
R463	1-249-423-11	CARBON	3. 3K 5% 1/4W	R557	1-249-437-11	CARBON	47K 5% 1/4W
R465	1-249-423-11	CARBON	3. 3K 5% 1/4W	R558	1-249-437-11	CARBON	47K 5% 1/4W
R466	1-247-885-00	CARBON	180K 5% 1/4W	R561	1-249-437-11	CARBON	47K 5% 1/4W
R467	1-249-430-11	CARBON	12K 5% 1/4W	R562	1-249-437-11	CARBON	47K 5% 1/4W
R468	1-249-431-11	CARBON	15K 5% 1/4W	R563	1-249-437-11	CARBON	47K 5% 1/4W
R470	1-249-415-11	CARBON	680 5% 1/4W	R564	1-249-437-11	CARBON	47K 5% 1/4W
R488	1-249-417-11	CARBON	1K 5% 1/4W	R565	1-249-437-11	CARBON	47K 5% 1/4W
R490	1-249-429-11	CARBON	10K 5% 1/4W	R566	1-249-437-11	CARBON	47K 5% 1/4W
R491	1-249-419-11	CARBON	1. 5K 5% 1/4W	R567	1-249-437-11	CARBON	47K 5% 1/4W
R496	1-249-435-11	CARBON	33K 5% 1/4W	R572	1-249-405-11	CARBON	100 5% 1/4W
R497	1-249-429-11	CARBON	10K 5% 1/4W	R573	1-249-427-11	CARBON	6. 8K 5% 1/4W
R502	△ 1-249-385-11	CARBON	2. 2 5% 1/4W F	R574	1-247-903-00	CARBON	1M 5% 1/4W
R506	1-249-429-11	CARBON	10K 5% 1/4W	R582	1-247-891-00	CARBON	330K 5% 1/4W
R509	1-249-417-11	CARBON	1K 5% 1/4W	R583	1-247-887-00	CARBON	220K 5% 1/4W
R510	1-249-417-11	CARBON	1K 5% 1/4W	R589	1-249-421-11	CARBON	2. 2K 5% 1/4W
R511	1-249-417-11	CARBON	1K 5% 1/4W	R590	△ 1-249-377-11	CARBON	0. 47 5% 1/4W F
R512	1-249-429-11	CARBON	10K 5% 1/4W	R591	1-249-422-11	CARBON	2. 7K 5% 1/4W
R513	1-247-705-11	CARBON	270 5% 1/4W	R595	1-249-429-11	CARBON	10K 5% 1/4W
R514	1-249-417-11	CARBON	1K 5% 1/4W	R596	1-249-429-11	CARBON	10K 5% 1/4W
R515	1-249-417-11	CARBON	1K 5% 1/4W	R598	1-249-413-11	CARBON	470 5% 1/4W
R516	1-249-429-11	CARBON	10K 5% 1/4W	R599	1-249-437-11	CARBON	47K 5% 1/4W
R517	1-249-437-11	CARBON	47K 5% 1/4W	R751	1-249-414-11	CARBON	560 5% 1/4W
R518	1-249-425-11	CARBON	4. 7K 5% 1/4W	R752	1-249-423-11	CARBON	3. 3K 5% 1/4W
R519	1-249-425-11	CARBON	4. 7K 5% 1/4W	R801	1-249-428-11	CARBON	8. 2K 5% 1/4W
R521	1-249-429-11	CARBON	10K 5% 1/4W	R802	1-249-428-11	CARBON	8. 2K 5% 1/4W
R522	1-249-429-11	CARBON	10K 5% 1/4W	R803	1-249-425-11	CARBON	4. 7K 5% 1/4W
R523	1-249-429-11	CARBON	10K 5% 1/4W	R804	1-249-425-11	CARBON	4. 7K 5% 1/4W
R524	1-249-428-11	CARBON	8. 2K 5% 1/4W	R805	1-249-428-11	CARBON	8. 2K 5% 1/4W
R526	1-249-437-11	CARBON	47K 5% 1/4W	R806	1-249-428-11	CARBON	8. 2K 5% 1/4W
R527	1-249-431-11	CARBON	15K 5% 1/4W	R807	1-249-429-11	CARBON	10K 5% 1/4W
R528	1-249-419-11	CARBON	1. 5K 5% 1/4W	R808	1-249-441-11	CARBON	100K 5% 1/4W
R529	1-249-418-11	CARBON	1. 2K 5% 1/4W	R809	1-249-441-11	CARBON	100K 5% 1/4W
R530	1-249-417-11	CARBON	1K 5% 1/4W	R810	1-249-435-11	CARBON	33K 5% 1/4W
R531	1-249-417-11	CARBON	1K 5% 1/4W	R813	1-249-432-11	CARBON	18K 5% 1/4W
R532	1-249-421-11	CARBON	2. 2K 5% 1/4W	R814	1-249-441-11	CARBON	100K 5% 1/4W
R533	1-247-897-11	CARBON	560K 5% 1/4W	R815	1-249-437-11	CARBON	47K 5% 1/4W

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

MA-62**SI-10****TU-120**

Ref. No.	Part No.	Description			
R816	1-249-436-11	CARBON	39K	5%	1/4W
R817	1-249-437-11	CARBON	47K	5%	1/4W
R818	1-249-435-11	CARBON	33K	5%	1/4W
R819	1-249-434-11	CARBON	27K	5%	1/4W
R820	1-249-427-11	CARBON	6. 8K	5%	1/4W
R821	1-249-430-11	CARBON	12K	5%	1/4W
R822	1-249-417-11	CARBON	1K	5%	1/4W
R824	1-247-883-00	CARBON	150K	5%	1/4W
R825	1-249-413-11	CARBON	470	5%	1/4W
R826	1-249-419-11	CARBON	1. 5K	5%	1/4W
R827	1-247-903-00	CARBON	1M	5%	1/4W
R828	1-249-419-11	CARBON	1. 5K	5%	1/4W
R829	1-249-422-11	CARBON	2. 7K	5%	1/4W
R830	1-249-429-11	CARBON	10K	5%	1/4W
R831	1-249-435-11	CARBON	33K	5%	1/4W
R837	1-249-417-11	CARBON	1K	5%	1/4W
R838	1-249-417-11	CARBON	1K	5%	1/4W
R840	1-249-413-11	CARBON	470	5%	1/4W
R841	1-249-417-11	CARBON	1K	5%	1/4W
R843	1-249-428-11	CARBON	8. 2K	5%	1/4W
R844	1-249-433-11	CARBON	22K	5%	1/4W
R845	1-249-433-11	CARBON	22K	5%	1/4W
R847	1-249-429-11	CARBON	10K	5%	1/4W
R849	1-249-429-11	CARBON	10K	5%	1/4W
R851	1-249-437-11	CARBON	47K	5%	1/4W
R852	1-249-436-11	CARBON	39K	5%	1/4W
R853	1-249-436-11	CARBON	39K	5%	1/4W
R854	1-249-437-11	CARBON	47K	5%	1/4W
R855	1-249-436-11	CARBON	39K	5%	1/4W
R856	1-249-436-11	CARBON	39K	5%	1/4W
R857	1-249-424-11	CARBON	3. 9K	5%	1/4W
R858	1-249-417-11	CARBON	1K	5%	1/4W
R859	1-249-441-11	CARBON	100K	5%	1/4W
R863	1-249-441-11	CARBON	100K	5%	1/4W
R901	1-249-417-11	CARBON	1K	5%	1/4W
R903	1-247-887-00	CARBON	220K	5%	1/4W

VARIABLE RESISTOR

RV251	1-238-021-11	RES, ADJ, CARBON 220K
RV501	1-238-016-11	RES, ADJ, CARBON 10K

TRANSFORMER

T251	1-433-352-11	TRANSFORMER, BIAS OSCILLATION
T252	1-406-349-11	TRANSFORMER, OSCILLATION

Remark	Ref. No.	Part No.	Description	Remark
			<u>CRYSTAL</u>	
	X501	1-578-774-11	VIBRATOR, CRYSTAL 12MHZ	
	X503	1-577-358-21	VIBRATOR, CERAMIC 4MHZ	

	*1-635-225-12	SI-10 BOARD (Ref.No. 3000 series)		

			<u>CAPACITOR</u>	
	C847	1-162-306-11	CERAMIC 0. 01MF	20% 16V
	C848	1-162-306-11	CERAMIC 0. 01MF	20% 16V
			<u>IC</u>	
	IC810	8-759-602-49	IC M5201P	
	IC812	8-759-040-70	IC MC14070BCP	

	*A-6721-369-A	TU-120 BOARD, COMPLETE (SLV-777) ***** (Ref.No. 2000 series)		
	*A-6721-375-A	TU-120 BOARD, COMPLETE (SVL-777UB) ***** (Ref.No. 2000 series)		
	*A-6721-370-A	TU-120 BOARD, COMPLETE (SLV-777NC) ***** (Ref.No. 2000 series)		
	*A-6721-372-A	TU-120 BOARD, COMPLETE (SLV-777VP) ***** (Ref.No. 2000 series)		
	*A-6721-377-A	TU-120 BOARD, COMPLETE (SLV-777AS) ***** (Ref.No. 2000 series)		
			<u>CAPACITOR</u>	
	C001	1-124-477-11	ELECT 47MF	20% 16V
	C002	1-126-163-11	ELECT 4. 7MF	20% 50V
	C003	1-163-009-11	CERAMIC CHIP 0. 001MF	10% 50V
	C004	1-126-233-11	ELECT 22MF	20% 50V
	C005	1-126-103-11	ELECT 470MF	20% 16V
	C006	1-124-927-11	ELECT 4. 7MF	20% 50V
	C008	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
	C009	1-163-123-00	CERAMIC CHIP 180PF	5% 50V
	C010	1-124-477-11	ELECT 47MF	20% 16V
	C011	1-124-477-11	ELECT 47MF	20% 16V
		(SVL-777UB)		
	C013	1-124-477-11	ELECT 47MF	20% 16V
		(SVL-777UB)		

When indicating parts by reference number, please include the board name.

TU-120

Ref. No.	Part No.	Description	Remark
C015	1-123-875-11	ELECT 10MF 20% 50V	
C016	1-123-875-11	ELECT 10MF 20% 50V	
		(SVL-777UB)	
C017	1-123-875-11	ELECT 10MF 20% 50V	
		(SVL-777/AS/VP/NC)	
C018	1-123-875-11	ELECT 10MF 20% 50V	
		(SVL-777/AS/VP/NC)	
C019	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	
C101	1-163-001-11	CERAMIC CHIP 220PF 10% 50V	
C103	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C104	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	

CONNECTOR

CN001	1-568-074-11	CONNECTOR (RECEPTALE) 10P
CN002	1-568-075-11	CONNECTOR (RECEPTALE) 12P
CN003	1-506-487-11	PIN, CONNECTOR 8P (SLV-777UB/NC)
CN004	1-506-487-11	PIN, CONNECTOR 8P (SLV-777UB/NC)

DIODE

D001	△8-719-110-78	DIODE RD33ES-B2
D014	8-719-911-19	DIODE ISS119

IF BLOCK

IF001	△1-466-166-11	IF BLOCK (IFX-395C) (SVL-777UB)
IF001	△1-466-167-11	IF BLOCK (IFX-389C) (SLV-777/AS/NC)
IF001	△1-466-145-11	IF BLOCK (IFX-389) (SLV-777VP)

RESISTOR

JR007	1-216-295-00	METAL GLAZE 0 5% 1/10W
JR009	1-216-295-00	METAL GLAZE 0 5% 1/10W
JR024	1-216-295-00	METAL GLAZE 0 5% 1/10W
JR025	1-216-295-00	METAL GLAZE 0 5% 1/10W
JR101	1-216-295-00	METAL GLAZE 0 5% 1/10W
JR201	1-216-295-00	METAL GLAZE 0 5% 1/10W

COIL

L001	1-408-417-00	INDUCTOR 47UH
L002	1-408-413-00	INDUCTOR 22UH
L003	1-408-409-00	INDUCTOR 10UH
L004	1-408-971-11	INDUCTOR 12UH (SLV-777/AS/NC/VP)
L005	1-408-409-00	INDUCTOR 10UH
L032	1-410-316-11	INDUCTOR 1UH
L033	1-410-316-11	INDUCTOR 1UH
L035	1-410-316-11	INDUCTOR 1UH

Ref. No.	Part No.	Description	Remark
		<u>DECODER BLOCK</u>	
MPX001	△1-466-144-11	DECODER BLOCK (MPL-389) (SLV-777/AS/VP/NC)	

TRANSISTOR

Q001	△8-729-901-78	TRANSISTOR 2SC2412K-R
Q003	8-729-901-78	TRANSISTOR 2SC2412K-R
Q004	8-729-900-98	TRANSISTOR DTC143TK
Q005	8-729-901-78	TRANSISTOR 2SC2412K-R
Q101	8-729-901-78	TRANSISTOR 2SC2412K-R

RESISTOR

R002	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R004	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R005	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R006	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R008	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R009	1-216-073-00	METAL GLAZE	10K	5%	1/10W	(SLV-777UB)
R009	1-216-295-00	METAL GLAZE	0	5%	1/10W	
		(SLV-777/AS/NC/VP)				
R011	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
		(SLV-777/AS/NC/VP)				
R012	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
		(SLV-777/AS/VP)				
R014	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
		(SLV-777/AS/VP)				
R013	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R015	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R016	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R017	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R021	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R023	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R024	1-216-295-00	METAL GLAZE	0	5%	1/10W	(SLV-777UB)
R025	1-216-295-00	METAL GLAZE	0	5%	1/10W	
		(SLV-777UB)				
R026	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R102	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

VARIABLE RESISTOR

RV001	1-241-080-11	RES, ADJ, CARBON 10K (SVL-777/AS/UB/NC)
-------	--------------	---

TUNER

TU001	△1-465-465-11	TUNER, ET (SLV-777AS)
TU001	△1-465-262-11	TUNER, ET (BTP-2U601) (SLV-777UB)
TU001	△1-465-260-11	TUNER, ET (BTP2C401) (SLV-777/AS/NC/VP)

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
*A-6721-376-A	NA-7 BOARD, COMPLETE (SLV-777UB)	***** (Ref.No. 3000 series)		C030	1-130-495-00	MYLAR 0.1MF	5% 50V
*A-6721-371-A	NA-7 BOARD, COMPLETE (SLV-777NC)	***** (Ref.No. 3000 series)		C031	1-163-059-00	CERAMIC CHIP 0.01MF	50V
<u>FILTER</u>				C032	1-164-232-11	CERAMIC CHIP 0.01MF	50V
BP001	1-236-238-11	FILTER, BAND PASS		C033	1-164-232-11	CERAMIC CHIP 0.01MF	50V
<u>CAPACITOR</u>				C034	1-124-465-00	ELECT 0.47MF	20% 50V
C001	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C035	1-163-099-00	CERAMIC CHIP 18PF	5% 50V
C002	1-124-477-11	ELECT 47MF	20% 16V	C036	1-163-245-11	CERAMIC CHIP 56PF	5% 50V
C003	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C037	1-163-099-00	CERAMIC CHIP 18PF	5% 50V
C004	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C037	1-163-241-11	CERAMIC CHIP 39PF	5% 50V
C005	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C038	1-124-126-00	ELECT 47MF	20% 10V
C006	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C039	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C007	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C040	1-124-443-00	ELECT 100MF	20% 10V
C008	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C041	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C009	1-124-477-11	ELECT 47MF	20% 16V	C045	1-123-875-11	ELECT 10MF	20% 50V
C010	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C046	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C011	1-124-443-00	ELECT 100MF	20% 10V	C047	1-124-443-00	ELECT 100MF	20% 10V
C012	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C051	1-163-095-00	CERAMIC CHIP 12PF	5% 50V
C013	1-126-157-11	ELECT 10MF	20% 16V	C052	1-163-095-00	CERAMIC CHIP 12PF	5% 50V
C014	1-124-465-00	ELECT 0.47MF	20% 50V	C053	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C015	1-124-465-00	ELECT 0.47MF	20% 50V	C054	1-124-443-00	ELECT 100MF	20% 10V
C016	1-163-099-00	CERAMIC CHIP 18PF	5% 50V	C055	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C017	1-163-245-11	CERAMIC CHIP 56PF	5% 50V	C056	1-124-443-00	ELECT 100MF	20% 10V
C018	1-163-099-00	CERAMIC CHIP 18PF	5% 50V	C057	1-130-469-00	MYLAR 680PF	5% 50V
C019	1-124-465-00	ELECT 0.47MF	20% 50V	C058	1-126-301-11	ELECT 1MF	20% 50V
C020	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C059	1-124-126-00	ELECT 47MF	20% 10V
C021	1-163-123-00	CERAMIC CHIP 180PF	5% 50V	C060	1-124-443-00	ELECT 100MF	20% 10V
C021	1-163-131-00	CERAMIC CHIP 390PF	5% 50V	C061	1-130-471-00	MYLAR 0.001MF	5% 50V
C022	1-163-123-00	CERAMIC CHIP 180PF	5% 50V	C062	1-124-442-00	ELECT 330MF	20% 6.3V
C022	1-163-131-00	CERAMIC CHIP 390PF	5% 50V	C063	1-130-471-00	MYLAR 0.001MF	5% 50V
C023	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C064	1-124-126-00	ELECT 47MF	20% 10V
C024	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C065	1-130-469-00	MYLAR 680PF	5% 50V
C025	1-130-495-00	MYLAR 0.1MF	5% 50V	C066	1-126-301-11	ELECT 1MF	20% 50V
C026	1-130-495-00	MYLAR 0.1MF	5% 50V	C067	1-124-477-11	ELECT 47MF	20% 16V
C027	1-163-245-11	CERAMIC CHIP 56PF	5% 50V	C068	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C027	1-163-120-00	CERAMIC CHIP 130PF	5% 50V	C069	1-126-157-11	ELECT 10MF	20% 16V
C028	1-163-245-11	CERAMIC CHIP 56PF	5% 50V	C070	1-126-157-11	ELECT 10MF	20% 16V
C028	1-163-120-00	CERAMIC CHIP 130PF	5% 50V	C071	1-124-477-11	ELECT 47MF	20% 16V
C029	1-130-495-00	MYLAR 0.1MF	5% 50V	C072	1-130-493-00	MYLAR 0.068MF	5% 50V
				C073	1-130-474-00	MYLAR 0.0018MF	5% 50V
				C074	1-124-477-11	ELECT 47MF	20% 16V
				C075	1-130-471-00	MYLAR 0.001MF	5% 50V
				C076	1-130-475-00	MYLAR 0.0022MF	5% 50V
				C077	1-126-151-11	ELECT 4.7MF	20% 16V
				C077	1-124-477-11	ELECT 47MF	20% 16V
				C078	1-126-101-11	ELECT 100MF	20% 16V
				C079	1-124-477-11	ELECT 47MF	20% 16V
				C080	1-164-232-11	CERAMIC CHIP 0.01MF	50V

When indicating parts by reference number, please include the board name.

NA-7

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark	
C081	1-126-157-11	ELECT	10MF	20%	16V			
C082	1-126-157-11	ELECT	10MF	20%	16V			
C083	1-124-477-11	ELECT	47MF	20%	16V			
C084	1-130-493-00	MYLAR	0.068MF	5%	50V			
C085	1-130-474-00	MYLAR	0.0018MF	5%	50V			
C086	1-124-477-11	ELECT	47MF	20%	16V			
C087	1-130-471-00	MYLAR	0.001MF	5%	50V			
C088	1-130-475-00	MYLAR	0.0022MF	5%	50V			
C089	1-126-151-11	ELECT	4.7MF	20%	16V			
<u>FILTER</u>								
CF001	1-409-333-00	TRAP, CERAMIC (6.0MHZ)						
<u>CONNECTOR</u>								
CN001	1-580-554-11	CONNECTOR, BOARD TO BOARD 16P						
<u>VARIABLE CAPACITOR</u>								
CV001	1-141-245-00	TRIMMER, CERAMIC 30PF						
CV002	1-141-245-00	TRIMMER, CERAMIC 30PF						
<u>DIODE</u>								
D001	8-719-801-52	DIODE 1SS190-TE85L						
D002	8-719-801-52	DIODE 1SS190-TE85L						
D003	8-719-400-18	DIODE 1S2837-T1						
D004	8-719-400-18	DIODE 1S2837-T1						
D005	8-719-400-18	DIODE 1S2837-T1						
D006	8-719-400-18	DIODE 1S2837-T1						
D007	8-719-400-18	DIODE 1S2837-T1						
D008	8-719-104-34	DIODE 1S2835-T1						
<u>FERRITE BEAD INDUCTOR</u>								
FB001	1-410-397-21	FERRITE BEAD INDUCTOR						
FB002	1-410-397-21	FERRITE BEAD INDUCTOR						
FB003	1-410-397-21	FERRITE BEAD INDUCTOR						
FB004	1-410-397-21	FERRITE BEAD INDUCTOR						
FB005	1-410-397-21	FERRITE BEAD INDUCTOR						
FB006	1-410-397-21	FERRITE BEAD INDUCTOR						
<u>FILTER</u>								
FL001	1-236-071-11	ENCAPSULATED COMPONENT						
FL002	1-236-071-11	ENCAPSULATED COMPONENT						
<u>IC</u>								
IC001	8-759-231-09	IC TA8662N		IC002	8-759-231-28	IC TC6011N		
				IC003	8-752-331-22	IC CXK5864BSP-10L		
				IC004	8-759-231-29	IC TD6710AN		
				IC005	8-759-900-72	IC NE5532P		
				IC006	8-759-900-72	IC NE5532P		
				<u>COIL</u>				
				L002	1-410-072-21	INDUCTOR	820UH	
				L003	1-410-072-21	INDUCTOR	820UH	
				L004	1-408-970-21	INDUCTOR	10UH	
				L005	1-408-970-21	INDUCTOR	10UH	
				L006	1-408-989-21	INDUCTOR	470UH	
				L007	1-408-989-21	INDUCTOR	470UH	
				<u>FILTER</u>				
				LP001	1-236-356-11	FILTER, LOW PASS		
				LP002	1-236-356-11	FILTER, LOW PASS		
				<u>TRANSISTOR</u>				
				Q001	8-729-100-66	TRANSISTOR 2SC1623-L6		
				Q002	8-729-100-66	TRANSISTOR 2SC1623-L6		
				Q003	8-729-104-80	TRANSISTOR 2SC3355		
				Q004	8-729-100-66	TRANSISTOR 2SC1623-L6		
				Q005	8-729-100-66	TRANSISTOR 2SC1623-L6		
				Q006	8-729-100-66	TRANSISTOR 2SC1623-L6		
				<u>RESISTOR</u>				
				R001	1-216-089-00	METAL GLAZE	47K 5% 1/10W	
				R002	1-216-089-00	METAL GLAZE	47K 5% 1/10W	
				R003	1-216-049-00	METAL GLAZE	1K 5% 1/10W	
				R004	1-216-037-00	METAL GLAZE	330 5% 1/10W	
				R009	1-216-049-00	METAL GLAZE	1K 5% 1/10W	
				R010	1-216-089-00	METAL GLAZE	47K 5% 1/10W	
				R011	1-216-089-00	METAL GLAZE	47K 5% 1/10W	
				R012	1-216-049-00	METAL GLAZE	1K 5% 1/10W	
				R013	1-216-049-00	METAL GLAZE	1K 5% 1/10W	
				R014	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	
				R015	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	
				R016	1-216-043-00	METAL GLAZE	560 5% 1/10W (SLV-777UB)	
				R016	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W (SLV-777NC)	
				R017	1-216-027-00	METAL GLAZE	120 5% 1/10W	
				R018	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	
				R019	1-212-873-11	FUSIBLE	47 5% 1/4W F	
				R020	1-216-101-00	METAL GLAZE	150K 5% 1/10W	
				R021	1-216-105-00	METAL GLAZE	220K 5% 1/10W	
				R022	1-216-043-00	METAL GLAZE	560 5% 1/10W	
				R023	1-216-049-00	METAL GLAZE	1K 5% 1/10W	

When indicating parts by reference number, please include the board name.

When indicating parts by reference number, please include the board name.

YC-65

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C711	1-163-129-00	CERAMIC CHIP 330PF	5%	C806	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C712	1-163-131-00	CERAMIC CHIP 390PF	5%	C807	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C713	1-163-139-00	CERAMIC CHIP 820PF	5%	C808	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C714	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C809	1-163-129-00	CERAMIC CHIP 330PF	5% 50V
C715	1-164-232-11	CERAMIC CHIP 0.01MF	50V				
C718	1-124-927-11	ELECT 4.7MF	20%	C810	1-163-129-00	CERAMIC CHIP 330PF	5% 50V
C723	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C811	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
C724	1-163-033-00	CERAMIC CHIP 0.022MF	50V	C812	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C725	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C813	1-124-443-00	ELECT 100MF	20% 6.3V
C726	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C814	1-124-443-00	ELECT 100MF	20% 6.3V
C727	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C815	1-164-330-21	CERAMIC CHIP 0.22MF	10% 16V
C728	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	C816	1-124-927-11	ELECT 4.7MF	20% 50V
C729	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	C817	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C730	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C818	1-163-036-00	CERAMIC CHIP 0.068MF	50V
C731	1-124-443-00	ELECT 100MF	20% 6.3V	C819	1-164-492-11	CERAMIC CHIP 0.15MF	10% 16V
C732	1-163-115-00	CERAMIC CHIP 82PF	5% 50V	C820	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C733	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C823	1-124-927-11	ELECT 4.7MF	20% 50V
C734	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	C825	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V
C735	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C826	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C736	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C827	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C737	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C828	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C738	1-124-925-11	ELECT 2.2MF	20% 50V	C829	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C739	1-163-121-00	CERAMIC CHIP 150PF	5% 50V	C830	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C741	1-124-126-00	ELECT 47MF	20% 10V	C831	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C743	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C832	1-124-791-11	ELECT 1MF	20% 50V
C744	1-124-126-00	ELECT 47MF	20% 10V	C833	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C746	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C834	1-123-382-00	ELECT 3.3MF	20% 50V
C747	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C835	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C749	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C836	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C750	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C837	1-163-099-00	CERAMIC CHIP 18PF	5% 50V
C751	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C840	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C753	1-124-126-00	ELECT 47MF	20% 10V	C841	1-164-232-11	CERAMIC CHIP 0.01MF (SLV-777VP)	50V
C754	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C842	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C755	1-163-119-00	CERAMIC CHIP 120PF	5% 50V	C858	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
C756	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C859	1-163-129-00	CERAMIC CHIP 330PF	5% 50V
C760	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C861	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V
C761	1-124-963-11	ELECT 33MF	20% 16V	C862	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C763	1-124-927-11	ELECT 4.7MF	20% 50V	C863	1-124-791-11	ELECT 1MF	20% 50V
C764	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C864	1-124-126-00	ELECT 47MF	20% 10V
C770	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C866	1-124-791-11	ELECT 1MF	20% 50V
C772	1-163-103-00	CERAMIC CHIP 27PF	5% 50V	C867	1-123-875-11	ELECT 10MF	20% 50V
C780	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C868	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C782	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	C869	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C783	1-163-129-00	CERAMIC CHIP 330PF	5% 50V	C870	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
C785	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C871	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
C790	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C872	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C801	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C873	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C802	1-124-442-00	ELECT 330MF	20% 6.3V	C874	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C803	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C875	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C804	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C876	1-108-796-11	MYLAR 0.0022MF	5% 50V
C805	1-163-033-00	CERAMIC CHIP 0.022MF	50V	C877	1-164-232-11	CERAMIC CHIP 0.01MF	50V

When indicating parts by reference number, please include the board name.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>
C878	1-164-364-11	CERAMIC CHIP	0.0022MF	5%	50V
C879	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C880	1-124-791-11	ELECT	1MF	20%	50V
C881	1-123-875-11	ELECT	10MF	20%	50V
C882	1-123-382-00	ELECT	3.3MF	20%	50V
C883	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C884	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C885	1-123-875-11	ELECT	10MF	20%	50V
C886	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C887	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C888	1-123-875-11	ELECT	10MF	20%	50V
C889	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C890	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C891	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C892	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C893	1-124-963-11	ELECT	33MF	20%	16V
C894	1-124-963-11	ELECT	33MF	20%	16V
C895	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C896	1-124-963-11	ELECT	33MF	20%	16V
C897	1-124-927-11	ELECT	4.7MF	20%	50V
C898	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C899	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V

CONNECTOR

CN701	1-506-490-21	PIN, CONNECTOR	11P
CN702	1-506-490-21	PIN, CONNECTOR	11P
CN703	*1-564-019-31	PIN, CONNECTOR	9P

DIODE

D705	8-719-104-34	DIODE 1S2835-T1
D801	8-719-400-18	DIODE DAN202K-T-146
D803	8-719-400-18	DIODE DAN202K-T-146

DELAY LINE

DL801	1-415-602-11	DELAY LINE, GLASS
FL701	1-236-312-11	FILTER, BAND PASS
FL801	1-239-915-11	FILTER, BAND PASS
FL802	1-236-311-11	FILTER, BAND PASS
FL803	1-527-849-00	FILTER, CERAMIC

IC

IC701	8-759-420-07	IC AN3231K
IC702	8-752-321-89	IC CXL5003P
IC801	8-759-320-78	IC HA118016NT
IC802	8-759-822-05	IC LA7213
IC860	8-759-420-53	IC LA3592K
IC861	8-759-991-54	IC MSM6989RS
IC862	8-752-006-12	IC CX20061

Ref. No.	Part No.	Description				Remark
IC863	8-759-822-05	IC LA7213				
IC864	8-759-000-49	IC MC14066BCP				
<u>RESISTOR</u>						
JR001	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR003	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR004	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR005	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR006	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR007	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR008	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR009	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR010	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR011	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR012	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR013	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR014	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR015	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR017	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR019	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR020	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR021	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR022	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR023	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR024	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR026	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR027	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR028	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR029	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR030	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR031	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR033	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR034	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR035	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR036	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR037	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR039	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR040	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR041	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR042	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR043	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR044	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR045	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR046	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR047	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR048	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR049	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR050	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR051	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR052	1-216-295-00	METAL GLAZE	0	5%	1/10W	

When indicating parts by reference number, please include the board name.

YC-65

Ref. No.	Part No.	Description			
JR053	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR054	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR055	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR056	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR057	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR058	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR059	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR060	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR061	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR062	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR063	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR064	1-216-295-00	METAL GLAZE	0	5%	1/10W

COIL

L701	1-408-982-11	INDUCTOR	100UH
L704	1-408-981-21	INDUCTOR	82UH
L705	1-408-983-21	INDUCTOR	120UH
L706	1-408-982-11	INDUCTOR	100UH
L707	1-408-982-11	INDUCTOR	100UH
L708	1-408-982-11	INDUCTOR	100UH
L709	1-408-982-11	INDUCTOR	100UH
L712	1-408-971-21	INDUCTOR	12UH
L713	1-408-974-21	INDUCTOR	22UH
L720	1-408-978-21	INDUCTOR	47UH
L721	1-408-971-21	INDUCTOR	12UH
L726	1-408-985-21	INDUCTOR	180UH
L801	1-408-982-11	INDUCTOR	100UH
L802	1-408-987-21	INDUCTOR	330UH
L803	1-408-948-00	INDUCTOR	220UH
L805	1-408-970-21	INDUCTOR	10UH
L806	1-408-969-21	INDUCTOR	8.2UH
L807	1-408-969-21	INDUCTOR	8.2UH
L809	1-407-499-00	INDUCTOR	3.9MMH
L861	1-408-976-21	INDUCTOR	33UH
L862	1-408-970-21	INDUCTOR	10UH
L880	1-408-982-11	INDUCTOR	100UH
L881	1-408-982-11	INDUCTOR	100UH
L882	1-408-972-21	INDUCTOR	15UH
L883	1-408-975-21	INDUCTOR	27UH

TRANSISTOR

Q702	8-729-216-22	TRANSISTOR 2SA1162
Q703	8-729-901-47	TRANSISTOR DTA143EK
Q704	8-729-901-01	TRANSISTOR DTC144EK
Q705	8-729-100-66	TRANSISTOR 2SC1623
Q706	8-729-216-22	TRANSISTOR 2SA1162
Q707	8-729-100-66	TRANSISTOR 2SC1623
Q709	8-729-100-66	TRANSISTOR 2SC1623
Q711	8-729-216-22	TRANSISTOR 2SA1162
Q715	8-729-901-01	TRANSISTOR DTC144EK

Ref. No.	Part No.	Description	Remark
Q716	8-729-901-01	TRANSISTOR DTC144EK	
Q717	8-729-100-66	TRANSISTOR 2SC1623	
Q719	8-729-216-22	TRANSISTOR 2SA1162	
Q721	8-729-100-66	TRANSISTOR 2SC1623	
Q722	8-729-901-01	TRANSISTOR DTC144EK	
Q723	8-729-901-01	TRANSISTOR DTC144EK	
Q801	8-729-100-66	TRANSISTOR 2SC1623	
Q802	8-729-901-01	TRANSISTOR DTC144EK (SLV-777VP)	
Q803	8-729-100-66	TRANSISTOR 2SC1623	
Q804	8-729-900-53	TRANSISTOR DTC144EK	
Q805	8-729-216-22	TRANSISTOR 2SA1162	
Q806	8-729-901-01	TRANSISTOR DTC144EK	
Q807	8-729-100-66	TRANSISTOR 2SC1623 (SLV-777VP)	
Q808	8-729-100-66	TRANSISTOR 2SC1623	
Q809	8-729-100-66	TRANSISTOR 2SC1623	
Q810	8-729-901-04	TRANSISTOR DTA114EK-T146	
Q811	8-729-216-22	TRANSISTOR 2SA1162	
Q812	8-729-100-66	TRANSISTOR 2SC1623	
Q852	8-729-901-01	TRANSISTOR DTC144EK (SLV-777VP)	
Q860	8-729-809-77	TRANSISTOR 2SC3142-J4	
Q862	8-729-901-01	TRANSISTOR DTC144EK	
Q880	8-729-100-66	TRANSISTOR 2SC1623	
Q881	8-729-100-66	TRANSISTOR 2SC1623	
Q882	8-729-216-22	TRANSISTOR 2SA1162	
Q883	8-729-100-66	TRANSISTOR 2SC1623	
RESISTOR			
R701	1-216-109-00	METAL GLAZE 330K 5%	1/10W
R702	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R703	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R704	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
R705	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R706	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R707	1-216-052-00	METAL GLAZE 1.3K 5%	1/10W
R708	1-216-036-00	METAL GLAZE 300 5%	1/10W
R709	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R710	1-216-091-00	METAL GLAZE 56K 5%	1/10W
R711	1-216-295-00	METAL GLAZE 0 5%	1/10W
R712	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R713	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R714	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R717	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
R719	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R720	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
R722	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
R723	1-216-079-00	METAL GLAZE 18K 5%	1/10W
R724	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
R725	1-216-039-00	METAL GLAZE 390 5%	1/10W
R726	1-216-047-00	METAL GLAZE 820 5%	1/10W
R727	1-216-049-00	METAL GLAZE 1K 5%	1/10W

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R728	1-216-115-00	METAL GLAZE	560K 5% 1/10W	R813	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R729	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R814	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R730	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R816	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R731	1-216-033-00	METAL GLAZE	220 5% 1/10W	R817	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R733	1-216-041-00	METAL GLAZE	470 5% 1/10W	R818	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R734	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R819	1-216-057-00	METAL GLAZE 2. 2K 5% 1/10W	
R735	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R820	1-216-069-00	METAL GLAZE 6. 8K 5% 1/10W	
R736	1-216-033-00	METAL GLAZE	220 5% 1/10W	R822	1-216-055-00	METAL GLAZE 1. 8K 5% 1/10W	
R737	1-216-041-00	METAL GLAZE	470 5% 1/10W	R823	1-216-061-00	METAL GLAZE 3. 3K 5% 1/10W	
R738	1-216-025-00	METAL GLAZE	100 5% 1/10W	R824	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R739	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R825	1-216-059-00	METAL GLAZE 2. 7K 5% 1/10W	
R740	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R826	1-216-069-00	METAL GLAZE 6. 8K 5% 1/10W	
R741	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R827	1-216-063-00	METAL GLAZE 3. 9K 5% 1/10W	
R742	1-216-295-00	METAL GLAZE	0 5% 1/10W	R828	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R743	1-216-041-00	METAL GLAZE	470 5% 1/10W	R829	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R744	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R830	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R745	1-216-041-00	METAL GLAZE	470 5% 1/10W	R831	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R749	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R832	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R750	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R833	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R751	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R834	1-216-059-00	METAL GLAZE 2. 7K 5% 1/10W	
R752	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R835	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R754	1-216-039-00	METAL GLAZE	390 5% 1/10W	R836	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R755	1-216-129-00	METAL GLAZE	2. 2M 5% 1/10W	R837	1-216-065-00	METAL GLAZE 4. 7K 5% 1/10W	
R761	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R838	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R762	1-216-295-00	METAL GLAZE	0 5% 1/10W	R839	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R763	1-216-061-00	METAL GLAZE	3. 3K 5% 1/10W	R840	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R764	1-216-061-00	METAL GLAZE	3. 3K 5% 1/10W	R841	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R768	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R843	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R769	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R844	1-216-059-00	METAL GLAZE 2. 7K 5% 1/10W	
R772	1-216-041-00	METAL GLAZE	470 5% 1/10W	R852	1-216-049-00	METAL GLAZE 1K 5% 1/10W (SLV-777VP)	
R773	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R853	1-216-049-00	METAL GLAZE 1K 5% 1/10W (SLV-777/NC/VP)	
R774	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R855	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R775	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R856	1-216-105-00	METAL GLAZE 220K 5% 1/10W	
R776	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R857	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R777	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R858	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R778	1-216-044-00	METAL GLAZE	620 5% 1/10W	R859	1-216-065-00	METAL GLAZE 4. 7K 5% 1/10W	
R779	1-216-041-00	METAL GLAZE	470 5% 1/10W	R860	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R780	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R862	1-216-061-00	METAL GLAZE 3. 3K 5% 1/10W	
R781	1-216-059-00	METAL GLAZE	2. 7K 5% 1/10W	R863	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R801	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R864	1-216-065-00	METAL GLAZE 4. 7K 5% 1/10W	
R802	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R865	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R803	1-216-041-00	METAL GLAZE	470 5% 1/10W	R866	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R804	1-216-049-00	METAL GLAZE	1K 5% 1/10W (SLV-777VP)	R867	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R805	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R868	1-216-057-00	METAL GLAZE 2. 2K 5% 1/10W	
R806	1-216-069-00	METAL GLAZE	6. 8K 5% 1/10W	R869	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R807	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R870	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R808	1-216-051-00	METAL GLAZE	1. 2K 5% 1/10W	R872	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R809	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R873	1-216-103-00	METAL GLAZE 180K 5% 1/10W	
R810	1-216-045-00	METAL GLAZE	680 5% 1/10W	R874	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R811	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R875	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R812	1-216-061-00	METAL GLAZE	3. 3K 5% 1/10W				

When indicating parts by reference number, please include the board name.

YC-65

PI-20

Ref. No.	Part No.	Description	Remark
R876	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R877	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R880	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R881	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R882	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R883	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R884	1-216-748-11	METAL GLAZE 39K 5% 1/10W	
R885	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R886	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R887	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R888	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R889	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R890	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R891	1-216-105-00	METAL GLAZE 220K 5% 1/10W	
R892	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R893	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R894	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R895	1-249-413-11	CARBON 470 5% 1/4W	
R900	1-216-143-00	METAL GLAZE 2.2 5% 1/10W (SLV-777VP)	

VARIABLE RESISTOR

RV701	1-237-723-11	RES, ADJ, CARBON 4.7K
RV702	1-237-723-11	RES, ADJ, CARBON 4.7K
RV703	1-230-523-11	RES, ADJ, CARBON 10K
RV704	1-238-167-11	RES, ADJ, CARBON 22K
RV705	1-238-167-11	RES, ADJ, CARBON 22K
RV707	1-238-166-11	RES, ADJ, CARBON 1K
RV708	1-230-523-11	RES, ADJ, CARBON 10K
RV710	1-230-494-11	RES, ADJ, CARBON 1K
RV801	1-238-166-11	RES, ADJ, CARBON 1K
RV860	1-230-527-11	RES, ADJ, CARBON 100K
RV861	1-238-166-11	RES, ADJ, CARBON 1K

TRANSFORMER

T802	1-409-467-11	COIL (TRAP 7.8K)
------	--------------	------------------

CRYSTAL

X801	1-577-651-11	VIBRATOR, CRYSTAL 4.43619MHZ
------	--------------	------------------------------

Ref. No.	Part No.	Description	Remark
*A-6727-278-A	PI-20 BOARD, COMPLETE (SLV-777/AS/VP/NC)	***** (Ref.No. 4000 series)	
*A-6727-291-A	PI-20 BOARD, COMPLETE (SLV-777UB)	***** (Ref.No. 4000 series)	

CAPACITOR

C201	1-124-589-11	ELECT 47MF 20% 16V
C202	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V
C203	1-164-182-11	CERAMIC CHIP 0.0033MF 10% 50V
C204	1-163-809-11	CERAMIC CHIP 0.047MF 10% 25V
C205	1-124-234-00	ELECT 22MF 20% 16V
C206	1-126-163-11	ELECT 4.7MF 20% 16V
C207	1-126-163-11	ELECT 4.7MF 20% 16V
C208	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V
C210	1-126-157-11	ELECT 10MF 20% 16V
C211	1-126-157-11	ELECT 10MF 20% 16V
C212	1-126-157-11	ELECT 10MF 20% 16V
C213	1-126-157-11	ELECT 10MF 20% 16V
C214	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V
C215	1-126-157-11	ELECT 10MF 20% 16V
C216	1-126-157-11	ELECT 10MF 20% 16V
C217	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V
C230	1-126-157-11	ELECT 10MF 20% 16V
C231	1-126-157-11	ELECT 10MF 20% 16V
C232	1-126-157-11	ELECT 10MF 20% 16V
C233	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V
C250	1-124-589-11	ELECT 47MF 20% 16V
C261	1-124-287-00	ELECT 10MF 20% 10V
C262	1-124-287-00	ELECT 10MF 20% 10V

CONNECTOR

CN201	1-569-816-11	CONNECTOR, BOARD TO BOARD 30P
CN202	1-569-816-11	CONNECTOR, BOARD TO BOARD 30P

IC

IC201	8-759-800-81	IC LA7016
IC202	8-759-822-60	IC LA7222
IC206	8-759-501-20	IC LVA522S
IC208	8-759-420-62	IC AN3916

COIL

L201	1-408-421-00	INDUCTOR 100UH
L203	1-408-421-00	INDUCTOR 100UH

When indicating parts by reference number, please include the board name.

PI-20

CG-10

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
<u>TRANSISTOR</u>				C858	1-162-205-31	CERAMIC 18PF 5% 50V	
Q224	8-729-216-22	TRANSISTOR 2SA1162		C863	1-124-791-11	ELECT 1MF 20% 50V	
<u>RESISTOR</u>				C864	1-162-217-31	CERAMIC 56PF 5% 50V	
R201	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C865	1-162-306-11	CERAMIC 0.01MF 20% 16V	
R202	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C866	1-162-306-11	CERAMIC 0.01MF 20% 16V	
R212	1-216-081-00	METAL GLAZE 22K 5% 1/10W		C868	1-162-306-11	CERAMIC 0.01MF 20% 16V	
R218	1-216-081-00	METAL GLAZE 22K 5% 1/10W		C876	1-162-306-11	CERAMIC 0.01MF 20% 16V	
R251	1-216-073-00	METAL GLAZE 10K 5% 1/10W		C890	1-162-306-11	CERAMIC 0.01MF 20% 16V	
R252	1-216-073-00	METAL GLAZE 10K 5% 1/10W		C895	1-124-126-00	ELECT 47MF 20% 10V	
R263	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C901	1-162-294-11	CERAMIC 1000PF 10% 50V	
R902	1-216-025-00	METAL GLAZE 100 5% 1/10W				(SLV-777VP)	
<u>VARIABLE RESISTOR</u>				<u>CONNECTOR</u>			
RV201	1-241-083-11	RES, ADJ, CARBON 47K		CN585	1-568-073-11	CONNECTOR (RECEPTALE) 8P	
*****				CN586	1-568-073-11	CONNECTOR (RECEPTALE) 8P	
*A-6727-282-A	CG-10 BOARD, COMPLETE (SLV-777VP)			<u>VARIABLE CAPACITOR</u>			
	***** (Ref. No. 5000 series)			CV851	1-141-245-00	CAP, TRIMMER	
*A-6727-292-A	CG-10 BOARD, COMPLETE (SLV-777UB)			<u>DIODE</u>			
	***** (Ref. No. 5000 series)			D851	8-719-911-19	DIODE 1SS119	
*A-6727-279-A	CG-10 BOARD, COMPLETE (SLV-777/AS/NC)			D852	8-719-911-19	DIODE 1SS119	
	***** (Ref. No. 5000 series)			<u>IC</u>			
*3-738-015-01	COVER, (DIA. 6) CARBON VR			IC685	8-759-996-03	IC LVA519S	
<u>CAPACITOR</u>				IC851	8-759-634-22	IC M50554-182SP	
C685	1-124-126-00	ELECT 47MF 20% 10V		<u>JUMPER</u>			
C686	1-162-306-11	CERAMIC 0.01MF 20% 16V		JW026	1-410-397-21	FERRITE BEAD INDUCTOR	
C687	1-102-980-00	CERAMIC 270PF 5% 50V		JW027	1-410-324-11	INDUCTOR 4.7UH	
C688	1-102-980-00	CERAMIC 270PF 5% 50V		<u>COIL</u>			
C689	1-164-083-11	CERAMIC 680PF 10% 50V		L840	1-410-515-11	INDUCTOR 30UH (SLV-777VP)	
C690	1-130-487-00	MYLAR 0.022MF 5% 50V		L851	1-410-521-11	INDUCTOR 100UH	
C691	1-124-791-11	ELECT 1MF 20% 50V		L852	1-410-521-11	INDUCTOR 100UH	
C692	1-162-306-11	CERAMIC 0.01MF 20% 16V		L853	1-410-521-11	INDUCTOR 100UH	
C693	1-162-291-31	CERAMIC 560PF 10% 50V		L856	1-410-423-11	INDUCTOR 22UH	
C801	1-161-061-11	CERAMIC 0.068MF 10% 25V		L861	1-410-521-11	INDUCTOR 100UH	
C802	1-124-287-00	ELECT 10MF 20% 10V		L862	1-410-521-11	INDUCTOR 100UH	
C840	1-162-211-11	CERAMIC 33PF 5% 50V		<u>TRANSISTOR</u>			
C852	1-162-209-31	CERAMIC 27PF 5% 50V		Q801	8-729-900-61	TRANSISTOR DTA114ES	
C853	1-162-306-11	CERAMIC 0.01MF 20% 16V		Q802	8-729-423-37	TRANSISTOR 2SA3311A-QRS	
C854	1-124-584-00	ELECT 100MF 20% 10V		Q803	8-729-900-89	TRANSISTOR DTC144ES	
C855	1-162-199-31	CERAMIC 10PF 5% 50V					
C856	1-162-201-31	CERAMIC 12PF 5% 50V					
C857	1-162-203-31	CERAMIC 15PF 5% 50V					

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

CG-10**DG-11**

Ref. No.	Part No.	Description	Remark
Q804	8-729-900-65	TRANSISTOR DTA144ES	
Q840	8-729-900-61	TRANSISTOR DTA114ES (SLV-777VP)	
Q853	8-729-423-37	TRANSISTOR 2SA3311A-QRS	
Q855	8-729-423-37	TRANSISTOR 2SA3311A-QRS (SLV-777VP)	
Q856	8-729-423-44	TRANSISTOR 2SA1309A-QRS	
Q857	8-729-423-37	TRANSISTOR 2SA3311A-QRS	
Q901	8-729-900-89	TRANSISTOR DTC144ES (SLV-777VP)	
<u>RESISTOR</u>			
R685	1-249-429-11	CARBON 10K 5% 1/4W	
R686	1-249-429-11	CARBON 10K 5% 1/4W	
R687	1-249-422-11	CARBON 2.7K 5% 1/4W	
R688	1-249-434-11	CARBON 27K 5% 1/4W	
R689	1-249-430-11	CARBON 12K 5% 1/4W	
R690	1-247-903-00	CARBON 1M 5% 1/4W	
R691	1-249-414-11	CARBON 560 5% 1/4W	
R801	1-249-425-11	CARBON 4.7K 5% 1/4W	
R802	1-249-437-11	CARBON 47K 5% 1/4W	
R803	1-249-425-11	CARBON 4.7K 5% 1/4W	
R804	1-249-441-11	CARBON 100K 5% 1/4W	
R840	1-249-429-11	CARBON 10K 5% 1/4W (SLV-777VP)	
R841	1-249-429-11	CARBON 10K 5% 1/4W (SLV-777VP)	
R851	1-249-423-11	CARBON 3.3K 5% 1/4W	
R852	1-249-424-11	CARBON 3.9K 5% 1/4W	
R855	1-249-421-11	CARBON 2.2K 5% 1/4W	
R856	1-249-416-11	CARBON 820 5% 1/4W	
R857	1-249-422-11	CARBON 2.7K 5% 1/4W	
R858	1-249-429-11	CARBON 10K 5% 1/4W	
R859	1-249-423-11	CARBON 3.3K 5% 1/4W	
R860	1-249-421-11	CARBON 2.2K 5% 1/4W	
R866	1-249-413-11	CARBON 470 5% 1/4W	
R867	1-249-417-11	CARBON 1K 5% 1/4W	
R868	1-249-424-11	CARBON 3.9K 5% 1/4W	
R870	1-249-413-11	CARBON 470 5% 1/4W	
R873	1-249-416-11	CARBON 820 5% 1/4W	
R877	1-249-435-11	CARBON 33K 5% 1/4W	
R878	1-249-426-11	CARBON 5.6K 5% 1/4W	
R879	1-249-413-11	CARBON 470 5% 1/4W	
R890	1-249-441-11	CARBON 100K 5% 1/4W	
R901	1-249-417-11	CARBON 1K 5% 1/4W (SLV-777UB)	
R902	1-249-406-11	CARBON 120 5% 1/4W	
R903	1-249-413-11	CARBON 470 5% 1/4W	
R904	1-249-429-11	CARBON 10K 5% 1/4W	
R905	1-249-429-11	CARBON 10K 5% 1/4W	

VARIABLE RESISTOR

RV685 1-238-015-11 RES, ADJ, CARBON 4.7K

Ref. No.	Part No.	Description	Remark
<u>CRYSTAL</u>			
X851	1-577-289-11	VIBRATOR, CRYSTAL 17.7MHZ	

*A-6727-280-A	DG-11 BOARD, COMPLETE (SLV-777/AS/VP/NC)	***** (Ref.No. 5000 series)	
*A-6727-293-A	DG-11 BOARD, COMPLETE (SLV-777UB)	***** (Ref.No. 5000 series)	
<u>CAPACITOR</u>			
C101	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C102	1-163-139-00	CERAMIC CHIP 820PF	5% 50V
C103	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C104	1-126-301-11	ELECT 1MF	20% 50V
C105	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C106	1-126-177-11	ELECT 100MF	20% 6.3V
C107	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C108	1-126-101-11	ELECT 100MF	20% 16V
C109	1-126-157-11	ELECT 10MF	20% 16V
C113	1-126-163-11	ELECT 4.7MF	20% 35V
C114	1-126-301-11	ELECT 1MF	20% 50V
C115	1-126-099-11	ELECT 2.2MF	20% 35V
C124	1-163-135-00	CERAMIC CHIP 560PF	5% 50V
C125	1-126-301-11	ELECT 1MF	20% 50V
C127	1-163-135-00	CERAMIC CHIP 560PF	5% 50V
C128	1-126-301-11	ELECT 1MF	20% 50V
C129	1-163-989-11	CERAMIC CHIP 0.033MF	10% 25V
C130	1-124-257-00	ELECT 2.2MF	20% 50V
C131	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C132	1-124-464-11	ELECT 0.22MF	20% 50V
C133	1-126-163-11	ELECT 4.7MF	20% 35V
C134	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C135	1-163-095-00	CERAMIC CHIP 12PF	5% 50V
C136	1-163-095-00	CERAMIC CHIP 12PF	5% 50V
C137	1-126-157-11	ELECT 10MF	20% 16V
C138	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C139	1-126-177-11	ELECT 100MF	20% 6.3V
C140	1-163-019-00	CERAMIC CHIP 0.0068MF	10% 50V
C141	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C142	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C143	1-124-257-00	ELECT 2.2MF	20% 50V
C144	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
C145	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
C146	1-163-145-00	CERAMIC CHIP 0.0015MF	5% 50V
C147	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V
C148	1-126-301-11	ELECT 1MF	20% 50V
C149	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
C150	1-126-177-11	ELECT 100MF	20% 6.3V
C151	1-164-232-11	CERAMIC CHIP 0.01MF	50V

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C152	1-163-121-00	CERAMIC CHIP 150PF	5% 50V	C253	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C153	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C254	1-163-130-00	CERAMIC CHIP 360PF	5% 50V
C154	1-163-989-11	CERAMIC CHIP 0.033MF	10% 25V	C255	1-163-128-00	CERAMIC CHIP 300PF	5% 50V
C155	1-124-257-00	ELECT 2.2MF	20% 50V	C256	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C156	1-164-232-11	CERAMIC CHIP 0.01MF	50V	<u>CONNECTOR</u>			
C157	1-124-464-11	ELECT 0.22MF	20% 50V	CN101	1-569-772-21	CONNECTOR, BOARD TO BOARD 9P	
C158	1-126-163-11	ELECT 4.7MF	20% 35V	CN103	1-568-152-21	CONNECTOR, BOARD TO BOARD 13P	
C159	1-164-232-11	CERAMIC CHIP 0.01MF	50V	<u>DIODE</u>			
C161	1-163-095-00	CERAMIC CHIP 12PF	5% 50V	D101	8-719-400-18	DIODE MA152WK	
C162	1-163-095-00	CERAMIC CHIP 12PF	5% 50V	D105	8-719-400-18	DIODE MA152WK	
C163	1-126-157-11	ELECT 10MF	20% 16V	D106	8-719-400-18	DIODE MA152WK	
C164	1-163-019-00	CERAMIC CHIP 0.0068MF	10% 50V	D109	8-719-400-18	DIODE MA152WK	
C165	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	<u>FERRITE BEAD INDUCTOR</u>			
C166	1-124-257-00	ELECT 2.2MF	20% 50V	FB101	1-410-397-21	FERRITE BEAD INDUCTOR	
C167	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	FB102	1-410-397-21	FERRITE BEAD INDUCTOR	
C168	1-163-137-00	CERAMIC CHIP 680PF	5% 50V	<u>FILTER</u>			
C169	1-163-137-00	CERAMIC CHIP 680PF	5% 50V	FL101	1-236-101-11	ENCAPSULATED COMPONENT	
C170	1-163-145-00	CERAMIC CHIP 0.0015MF	5% 50V	FL102	1-236-101-11	ENCAPSULATED COMPONENT	
C171	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V	FL103	1-236-101-11	ENCAPSULATED COMPONENT	
C172	1-126-301-11	ELECT 1MF	20% 50V	FL104	1-236-101-11	ENCAPSULATED COMPONENT	
C174	1-163-038-00	CERAMIC CHIP 0.1MF	25V	FL109	1-236-071-11	ENCAPSULATED COMPONENT	
C175	1-163-038-00	CERAMIC CHIP 0.1MF	25V	FL110	1-236-071-11	ENCAPSULATED COMPONENT	
C176	1-126-177-11	ELECT 100MF	20% 6.3V	FL111	1-424-228-11	FILTER, NOISE	
C177	1-163-038-00	CERAMIC CHIP 0.1MF	25V	FL112	1-424-228-11	FILTER, NOISE	
C179	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FL113	1-424-228-11	FILTER, NOISE	
C180	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FL114	1-424-228-11	FILTER, NOISE	
C181	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FL115	1-424-228-11	FILTER, NOISE	
C182	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FL116	1-424-228-11	FILTER, NOISE	
C183	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FL117	1-424-228-11	FILTER, NOISE	
C184	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FL118	1-236-071-11	ENCAPSULATED COMPONENT	
C187	1-126-157-11	ELECT 10MF	20% 16V	FL119	1-236-986-11	FILTER, BAND PASS	
C188	1-126-157-11	ELECT 10MF	20% 16V	FL120	1-236-986-11	FILTER, BAND PASS	
C189	1-126-157-11	ELECT 10MF	20% 16V	FL121	1-236-844-11	FILTER, LOW PASS	
C190	1-126-157-11	ELECT 10MF	20% 16V	FL122	1-236-071-11	ENCAPSULATED COMPONENT	
C191	1-126-177-11	ELECT 100MF	20% 6.3V	<u>IC</u>			
C192	1-163-038-00	CERAMIC CHIP 0.1MF	25V	IC101	8-759-322-29	IC HA118088MPER	
C193	1-164-234-11	CERAMIC CHIP 1MF	10V	IC102	8-759-323-11	IC HA11567MP	
C194	1-124-442-00	ELECT 330MF	20% 6.3V	IC103	8-759-322-34	IC HA11535MP	
C196	1-163-038-00	CERAMIC CHIP 0.1MF	25V	IC104	8-759-322-68	IC HD49410	
C197	1-126-177-11	ELECT 100MF	20% 6.3V	IC105	8-759-322-51	IC HM534612P-12	
C198	1-126-177-11	ELECT 100MF	20% 6.3V	IC108	8-759-008-74	IC MC14001BF	
C199	1-163-038-00	CERAMIC CHIP 0.1MF	25V				
C200	1-163-038-00	CERAMIC CHIP 0.1MF	25V				
C201	1-126-177-11	ELECT 100MF	20% 6.3V				
C202	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C204	1-126-301-11	ELECT 1MF	20% 50V				
C205	1-164-232-11	CERAMIC CHIP 0.01MF	50V				
C208	1-163-245-11	CERAMIC CHIP 56PF	5% 50V				
C250	1-163-121-00	CERAMIC CHIP 150PF	5% 50V				
C251	1-163-121-00	CERAMIC CHIP 150PF	5% 50V				
C252	1-163-121-00	CERAMIC CHIP 150PF	5% 50V				

When indicating parts by reference number, please include the board name.

DG-11

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
<u>COIL</u>							
L101	1-407-169-99	INDUCTOR 100UH		R139	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
L102	1-407-169-99	INDUCTOR 100UH		R140	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
L105	1-407-169-99	INDUCTOR 100UH		R141	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
L106	1-407-169-99	INDUCTOR 100UH		R143	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
L107	1-407-169-99	INDUCTOR 100UH		R144	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
L108	1-407-169-99	INDUCTOR 100UH		R145	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
L109	1-407-169-99	INDUCTOR 100UH		R146	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
L110	1-407-169-99	INDUCTOR 100UH		R147	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
<u>TRANSISTOR</u>				R148	1-216-037-00	METAL GLAZE 330 5% 1/10W	
Q101	8-729-305-25	TRANSISTOR 2SA1052-C		R149	1-216-045-00	METAL GLAZE 680 5% 1/10W	
Q102	8-729-305-25	TRANSISTOR 2SA1052-C		R150	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
Q103	8-729-305-25	TRANSISTOR 2SA1052-C		R151	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
Q108	8-729-305-25	TRANSISTOR 2SA1052-C		R152	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
Q109	8-729-305-25	TRANSISTOR 2SA1052-C		R153	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
Q110	8-729-305-25	TRANSISTOR 2SA1052-C		R154	1-216-013-00	METAL GLAZE 33 5% 1/10W	
Q112	8-729-901-00	TRANSISTOR DTC124EK		R155	1-216-033-00	METAL GLAZE 220 5% 1/10W	
Q113	8-729-305-25	TRANSISTOR 2SA1052-C		R156	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
Q114	8-729-271-22	TRANSISTOR 2SC2712-G		R157	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
Q116	8-729-305-25	TRANSISTOR 2SA1052-C		R158	1-216-039-00	METAL GLAZE 390 5% 1/10W	
Q117	8-729-271-22	TRANSISTOR 2SC2712-G		R159	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
Q118	8-729-305-25	TRANSISTOR 2SA1052-C		R165	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
Q120	8-729-901-00	TRANSISTOR DTC124EK		R166	1-216-748-11	METAL GLAZE 39K 5% 1/10W	
Q121	8-729-305-25	TRANSISTOR 2SA1052-C		R167	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q122	8-729-271-22	TRANSISTOR 2SC2712-G		R168	1-216-103-00	METAL GLAZE 180K 5% 1/10W	
Q123	8-729-901-00	TRANSISTOR DTC124EK		R170	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
Q125	8-729-903-82	TRANSISTOR FMW2		R171	1-216-041-00	METAL GLAZE 470 5% 1/10W	
Q126	8-729-901-01	TRANSISTOR DTC144EK		R172	1-216-041-00	METAL GLAZE 470 5% 1/10W	
Q127	8-729-271-22	TRANSISTOR 2SC2712-G		R173	1-216-033-00	METAL GLAZE 220 5% 1/10W	
<u>RESISTOR</u>				R174	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R101	1-216-049-00	METAL GLAZE 1K 5% 1/10W		R175	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R102	1-216-049-00	METAL GLAZE 1K 5% 1/10W		R176	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R103	1-216-049-00	METAL GLAZE 1K 5% 1/10W		R177	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R104	1-216-049-00	METAL GLAZE 1K 5% 1/10W		R178	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R105	1-216-049-00	METAL GLAZE 1K 5% 1/10W		R179	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R106	1-216-049-00	METAL GLAZE 1K 5% 1/10W		R180	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R107	1-216-049-00	METAL GLAZE 1K 5% 1/10W		R181	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R108	1-216-049-00	METAL GLAZE 1K 5% 1/10W		R182	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R109	1-216-117-00	METAL GLAZE 680K 5% 1/10W		R183	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R110	1-216-117-00	METAL GLAZE 680K 5% 1/10W		R184	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R111	1-216-097-00	METAL GLAZE 100K 5% 1/10W		R185	1-216-013-00	METAL GLAZE 33 5% 1/10W	
R112	1-216-049-00	METAL GLAZE 1K 5% 1/10W		R186	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R114	1-216-033-00	METAL GLAZE 220 5% 1/10W		R187	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
R115	1-216-049-00	METAL GLAZE 1K 5% 1/10W		R188	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R116	1-216-077-00	METAL GLAZE 15K 5% 1/10W		R189	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R117	1-216-117-00	METAL GLAZE 680K 5% 1/10W		R190	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R127	1-216-073-00	METAL GLAZE 10K 5% 1/10W		R196	1-216-748-11	METAL GLAZE 39K 5% 1/10W	
				R197	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
				R198	1-216-103-00	METAL GLAZE 180K 5% 1/10W	
				R199	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
				R200	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
				R201	1-216-672-11	METAL CHIP 7.5K 0.50% 1/10W	

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark
R202	1-216-688-11	METAL CHIP 36K 0.50% 1/10W	
R203	1-216-631-11	METAL CHIP 150 0.50% 1/10W	

R204	1-216-679-11	METAL CHIP 15K 0.50% 1/10W	
R205	1-216-672-11	METAL CHIP 7.5K 0.50% 1/10W	
R206	1-216-679-11	METAL CHIP 15K 0.50% 1/10W	
R207	1-216-688-11	METAL CHIP 36K 0.50% 1/10W	
R208	1-216-631-11	METAL CHIP 150 0.50% 1/10W	

R209	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R215	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R216	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R218	1-216-125-00	METAL GLAZE 1.5M 5% 1/10W	
R219	1-216-125-00	METAL GLAZE 1.5M 5% 1/10W	

R220	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R221	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R222	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
R223	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R227	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	

R230	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R250	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R251	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R252	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R253	1-216-081-00	METAL GLAZE 22K 5% 1/10W	

R254	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R255	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R256	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R257	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R258	1-216-077-00	METAL GLAZE 15K 5% 1/10W	

R259	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R260	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R261	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R262	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R263	1-216-629-11	METAL CHIP 120 0.50% 1/10W	

VARIABLE RESISTOR

RV101	1-241-079-11	RES, ADJ, CARBON 4.7K	
RV102	1-241-077-11	RES, ADJ, CARBON 2.2K	
RV103	1-241-081-11	RES, ADJ, CARBON 22K	
RV104	1-241-081-11	RES, ADJ, CARBON 22K	

TRANSFORMER

T101	1-411-120-11	COIL, PEAKING 14.3MHZ	
T102	1-411-119-11	COIL, PEAKING 16.1MHZ	

Ref. No.	Part No.	Description	Remark
----------	----------	-------------	--------

CRYSTAL

X101	1-579-222-11	OSCILLATOR, CRYSTAL 4.43MHZ	
X102	1-577-611-11	OSCILLATOR, CERAMIC 500KHZ	
X103	1-579-222-11	OSCILLATOR, CRYSTAL 4.43MHZ	
X104	1-577-611-11	OSCILLATOR, CERAMIC 500KHZ	

*A-6727-137-A RP-63 BOARD, COMPLETE (SLV-777/AS/NC/VP)
***** (Ref. No. 6000 series)

*A-6727-294-A RP-63 BOARD, COMPLETE (SLV-777UB)
***** (Ref. No. 6000 series)

CAPACITOR

C101	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C102	1-124-242-00	ELECT 33MF	20%	16V
C103	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C104	1-126-301-11	ELECT 1MF	20%	50V
C106	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V

C107	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C108	1-124-455-00	ELECT 100MF	20%	16V
C109	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C110	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C111	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V

C112	1-126-157-11	ELECT 10MF	20%	16V
C113	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C114	1-126-301-11	ELECT 1MF	20%	50V
C115	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C116	1-163-113-00	CERAMIC CHIP 68PF	5%	50V

C117	1-163-113-00	CERAMIC CHIP 68PF	5%	50V
C118	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C119	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C120	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C121	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V

C122	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C123	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C801	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C802	1-126-154-11	ELECT 47MF	20%	6.3V
C803	1-163-038-00	CERAMIC CHIP 0.1MF		25V

C804	1-124-464-11	ELECT 0.22MF	20%	50V
C805	1-163-099-00	CERAMIC CHIP 18PF	5%	50V
C806	1-163-103-00	CERAMIC CHIP 27PF	5%	50V
C807	1-124-464-11	ELECT 0.22MF	20%	50V
C808	1-163-038-00	CERAMIC CHIP 0.1MF		25V

C809	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C810	1-124-464-11	ELECT 0.22MF	20%	50V
C811	1-163-103-00	CERAMIC CHIP 27PF	5%	50V
C812	1-163-099-00	CERAMIC CHIP 18PF	5%	50V
C813	1-124-464-11	ELECT 0.22MF	20%	50V

C814	1-163-038-00	CERAMIC CHIP 0.1MF		25V
------	--------------	--------------------	--	-----

When indicating parts by reference number, please include the board name.

RP-63

Ref. No.	Part No.	Description	Remark
C815	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C816	1-124-463-00	ELECT 0.1MF	20% 50V
C817	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C818	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C819	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
C820	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C821	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C822	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C823	1-163-107-00	CERAMIC CHIP 39PF	5% 50V
C824	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C825	1-163-115-00	CERAMIC CHIP 82PF	5% 50V
C826	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C827	1-163-129-00	CERAMIC CHIP 330PF	5% 50V
C828	1-126-154-11	ELECT 47MF	20% 6.3V
C829	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C831	1-126-154-11	ELECT 47MF	20% 6.3V
C832	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C833	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C834	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C835	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C836	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C838	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C850	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C851	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C852	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C853	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C854	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C855	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C856	1-126-157-11	ELECT 10MF	20% 16V
C857	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C858	1-163-038-00	CERAMIC CHIP 0.1MF	25V

CONNECTOR

CN101	1-506-487-11	PIN, CONNECTOR 8P
CN801	1-565-759-11	CONNECTOR, BOARD TO BOARD 13P
CN802	1-506-490-21	PIN, CONNECTOR 11P
CN803	1-506-486-11	PIN, CONNECTOR 7P
CN804	*1-564-031-00	PIN, CONNECTOR 6P

DIODE

D102	8-719-400-18	DIODE MA152WK
D801	8-719-400-18	DIODE MA152WK
D802	8-719-400-18	DIODE MA152WK
D803	8-719-400-18	DIODE MA152WK

IC

IC101	8-759-320-55	IC HA12115MP
IC101	8-759-320-55	IC HA12115MP
IC801	8-759-320-52	IC HA118019NT

Ref. No.	Part No.	Description	Remark
<u>COIL</u>			
L101	1-408-982-11	INDUCTOR	100UH
L102	1-408-982-11	INDUCTOR	100UH
L801	1-408-982-11	INDUCTOR	100UH
L802	1-408-975-21	INDUCTOR	27UH
L803	1-408-970-21	INDUCTOR	10UH
L804	1-408-985-21	INDUCTOR	180UH
L805	1-408-982-11	INDUCTOR	100UH
L806	1-408-982-11	INDUCTOR	100UH
L807	1-408-977-21	INDUCTOR	39UH
L808	1-408-973-21	INDUCTOR	18UH
L809	1-408-973-21	INDUCTOR	18UH
L850	1-408-972-21	INDUCTOR	15UH
L851	1-408-982-11	INDUCTOR	100UH
<u>TRANSISTOR</u>			
Q101	8-729-216-22	TRANSISTOR 2SA1162	
Q801	8-729-216-22	TRANSISTOR 2SA1162	
Q802	8-729-901-78	TRANSISTOR 2SC2412K-R	
Q803	8-729-901-78	TRANSISTOR 2SC2412K-R	
Q804	8-729-901-01	TRANSISTOR DTC144EK	
Q805	8-729-901-01	TRANSISTOR DTC144EK	
Q806	8-729-901-01	TRANSISTOR DTC144EK	
Q850	8-729-301-98	TRANSISTOR 2SB1000A-L	
Q851	8-729-901-01	TRANSISTOR DTC144EK	
Q852	8-729-216-22	TRANSISTOR 2SA1162	
Q853	8-729-216-22	TRANSISTOR 2SA1162	
Q854	8-729-901-01	TRANSISTOR DTC144EK	
<u>RESISTOR</u>			
R101	1-216-019-00	METAL GLAZE	56 5% 1/10W
R102	1-216-003-11	METAL GLAZE	12 5% 1/10W
R104	1-216-079-00	METAL GLAZE	18K 5% 1/10W
R105	1-216-304-11	METAL GLAZE	3.3 5% 1/10W
R106	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R107	1-216-304-11	METAL GLAZE	3.3 5% 1/10W
R108	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R110	1-216-295-00	METAL GLAZE	0 5% 1/10W
R111	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R120	1-216-295-00	METAL GLAZE	0 5% 1/10W
R124	1-216-295-00	METAL GLAZE	0 5% 1/10W
R140	1-216-295-00	METAL GLAZE	0 5% 1/10W
R141	1-216-011-00	METAL GLAZE	27 5% 1/10W
R801	1-216-025-00	METAL GLAZE	100 5% 1/10W
R802	1-216-025-00	METAL GLAZE	100 5% 1/10W
R803	1-216-021-00	METAL GLAZE	68 5% 1/10W
R804	1-216-025-00	METAL GLAZE	100 5% 1/10W
R805	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R806	1-216-113-00	METAL GLAZE	470K 5% 1/10W

When indicating parts by reference number, please include the board name.

PR-63

JS-20

TK-12

VI-97

IO-40

Ref. No.	Part No.	Description			
R807	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R808	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R809	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R810	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R811	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R812	1-216-057-00	METAL GLAZE	2. 2K	5%	1/10W
R813	1-216-057-00	METAL GLAZE	2. 2K	5%	1/10W
R814	1-216-039-00	METAL GLAZE	390	5%	1/10W
R815	1-216-039-00	METAL GLAZE	390	5%	1/10W
R816	1-216-047-00	METAL GLAZE	820	5%	1/10W
R817	1-216-067-00	METAL GLAZE	5. 6K	5%	1/10W
R818	1-216-057-00	METAL GLAZE	2. 2K	5%	1/10W
R819	1-216-041-00	METAL GLAZE	470	5%	1/10W
R820	1-216-045-00	METAL GLAZE	680	5%	1/10W
R821	1-216-043-00	METAL GLAZE	560	5%	1/10W
R822	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R823	1-216-047-00	METAL GLAZE	820	5%	1/10W
R824	1-216-051-00	METAL GLAZE	1. 2K	5%	1/10W
R826	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R827	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R828	1-216-057-00	METAL GLAZE	2. 2K	5%	1/10W
R829	1-216-055-00	METAL GLAZE	1. 8K	5%	1/10W
R830	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R831	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R832	1-216-055-00	METAL GLAZE	1. 8K	5%	1/10W
R833	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R850	1-216-067-00	METAL GLAZE	5. 6K	5%	1/10W
R851	1-216-043-00	METAL GLAZE	560	5%	1/10W
R852	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R853	1-216-047-00	METAL GLAZE	820	5%	1/10W
R854	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R855	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R856	1-216-748-11	METAL GLAZE	39K	5%	1/10W
R857	1-216-069-00	METAL GLAZE	6. 8K	5%	1/10W

SWITCH

SW801 1-570-857-11 SWITCH, SLIDE

*1-635-216-11 JS-20 BOARD (Ref.No. 8000 series)

CONNECTOR

CN901 *1-563-610-11 CONNECTOR, FLEXIBLE 7P

Ref. No.	Part No.	Description	Remark
<u>SWITCH</u>			
S901	1-572-384-11	SWITCH, ROTARY (JOG/SHUTTLE)	

*1-635-218-13	TK-12 BOARD (SLV-777/AS/NC/VP)	*****	(Ref.No. 6000 series)
*1-635-218-21	TK-12 BOARD (SLV-777UB)	*****	(Ref.No. 6000 series)
<u>CONNECTOR</u>			
CN201	1-563-618-11	CONNECTOR, FLEXIBLE 15P	
CN202	1-569-672-11	CONNECTOR, BOARD TO BOARD 16P	

*1-637-558-11	VI-97 BOARD (Ref.No. 6000 series)	*****	
<u>CAPACITOR</u>			
C001	1-124-589-11	ELECT	47MF 20% 16V
C002	1-126-096-11	ELECT	10MF 20% 25V
C004	1-161-379-00	CERAMIC	0. 01MF 30% 16V
C005	1-124-472-11	ELECT	470MF 20% 10V
<u>CONNECTOR</u>			
CN301	1-563-599-11	CONNECTOR, FLEXIBLE 22P	
CN302	1-569-335-11	CONNECTOR, BOARD TO BOARD 9P	
CN303	1-569-735-11	CONNECTOR, BOARD TO BOARD 11P	
<u>IC</u>			
IC001	8-759-800-81	IC LA7016	

*A-6754-215-A	IO-40 BOARD, COMPLETE (SLV-777UB)	*****	(Ref.No. 7000 series)
*A-6754-198-A	IO-40 BOARD, COMPLETE (SLV-777/AS/NC/VP)	*****	(Ref.No. 7000 series)
<u>CAPACITOR</u>			
C002	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C004	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C006	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C008	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C010	1-163-133-00	CERAMIC CHIP 470PF	5% 50V

When indicating parts by
reference number, please include
the board name.

IO-40

DI-43

NM-1

Ref. No.	Part No.	Description	Remark
C012	1-163-133-00	CERAMIC CHIP 470PF	5%
C013	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C014	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C015	1-163-833-00	CERAMIC CHIP 0.068MF	25V

CONNECTOR

CN101	1-569-773-11	CONNECTOR, BOARD TO BOARD 17P
CN102	1-569-774-11	CONNECTOR, BOARD TO BOARD 19P

JACK

CNJ002	1-507-792-31	JACK (CONTROL S IN)
CNJ003	1-507-792-31	JACK (CONTROL S OUT)
CNJ004	1-561-534-41	SOCKET 21P (EURO AV IN)
CNJ005	1-561-534-41	SOCKET 21P (EURO AV IN/OUT)
CNJ006	1-565-727-11	JACK, PIN 3P (LINE OUT)

DIODE

D001	8-719-106-08	DIODE RD6. 2M-B2
D002	8-719-106-08	DIODE RD6. 2M-B2
D006	8-719-106-08	DIODE RD6. 2M-B2
D007	8-719-106-08	DIODE RD6. 2M-B2
D008	8-719-106-08	DIODE RD6. 2M-B2

D009	8-719-106-08	DIODE RD6. 2M-B2
D010	8-719-106-08	DIODE RD6. 2M-B2
D013	8-719-106-08	DIODE RD6. 2M-B2
D014	8-719-106-08	DIODE RD6. 2M-B2
D015	8-719-106-08	DIODE RD6. 2M-B2

D016	8-719-106-08	DIODE RD6. 2M-B2
D019	8-719-157-61	DIODE RD15M-T1B

COIL

L001	1-410-336-11	INDUCTOR	220UH
L002	1-410-336-11	INDUCTOR	220UH
L003	1-410-336-11	INDUCTOR	220UH
L004	1-410-336-11	INDUCTOR	220UH
L005	1-410-336-11	INDUCTOR	220UH

L006	1-410-336-11	INDUCTOR	220UH
------	--------------	----------	-------

TRANSISTOR

Q001	8-729-901-06	TRANSISTOR DTA144EK
Q002	8-729-901-01	TRANSISTOR DTC144EK

RESISTOR

R002	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R004	1-216-022-00	METAL GLAZE	75	5%	1/10W
R005	1-216-295-00	METAL GLAZE	0	5%	1/10W

Ref. No.	Part No.	Description	Remark
R007	1-216-295-00	METAL GLAZE	0 5% 1/10W
R009	1-216-031-00	METAL GLAZE	180 5% 1/10W

R010	1-216-031-00	METAL GLAZE	180 5% 1/10W
R011	1-216-295-00	METAL GLAZE	0 5% 1/10W
R013	1-216-295-00	METAL GLAZE	0 5% 1/10W
R015	1-216-022-00	METAL GLAZE	75 5% 1/10W
R016	1-216-049-00	METAL GLAZE	1K 5% 1/10W

R017	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R018	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R019	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R020	1-216-295-00	METAL GLAZE	0 5% 1/10W
R022	1-216-295-00	METAL GLAZE	0 5% 1/10W

R023	1-216-049-00	METAL GLAZE	1K 5% 1/10W
------	--------------	-------------	-------------

*1-637-536-11 DI-43 BOARD (Ref.No. 8000 series)

CONNECTOR

CN201	1-569-678-21	CONNECTOR, BOARD TO BOARD 9P
CN203	1-568-104-21	CONNECTOR, BOARD TO BOARD 13P
CN204	1-568-073-11	CONNECTOR (RECEPTALE) 8P
CN205	1-568-075-11	CONNECTOR (RECEPTALE) 12P

*1-632-333-11 NM-1 BOARD (SLV-777NC/UB)
***** (Ref.No. 8000 series)

CAPACITOR

C001	1-123-875-11	ELECT	10MF	20%	50V
C002	1-123-875-11	ELECT	10MF	20%	50V
C003	1-124-589-11	ELECT	47MF	20%	16V
C004	1-124-589-11	ELECT	47MF	20%	16V
C009	1-123-875-11	ELECT	10MF	20%	50V

C010	1-123-875-11	ELECT	10MF	20%	50V
------	--------------	-------	------	-----	-----

CONNECTOR

CN001	1-506-487-11	PIN, CONNECTOR 8P
CN002	1-506-487-11	PIN, CONNECTOR 8P
CN003	1-580-555-11	CONNECTOR, BOARD TO BOARD 16P

DIODE

D002	8-719-911-19	DIODE 1SS119
D003	8-719-911-19	DIODE 1SS119
D010	8-719-911-19	DIODE 1SS119

When indicating parts by reference number, please include the board name.

NM-1**MD-49**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
<u>IC</u>							
IC001	8-759-800-81	IC LA7016		C026	1-102-074-00	CERAMIC MELF 0.001MF 10% 50V	
IC002	8-759-800-81	IC LA7016		<u>CONNECTOR</u>			
<u>TRANSISTOR</u>				CN001	1-506-494-11	PIN, CONNECTOR 15P	
Q003	8-729-900-80	TRANSISTOR DTC114ES		CN002	1-569-335-11	CONNECTOR, BOARD TO BOARD 9P	
Q004	8-729-900-80	TRANSISTOR DTC114ES		CN003	1-569-334-11	CONNECTOR, BOARD TO BOARD 5P	
Q005	8-729-900-80	TRANSISTOR DTC114ES		CN004	1-563-622-21	CONNECTOR, FLEXIBLE 19P	
Q006	8-729-900-80	TRANSISTOR DTC114ES		CN005	*1-506-482-11	PIN, CONNECTOR 3P	
Q007	8-729-900-80	TRANSISTOR DTC114ES		CN006	1-569-333-11	CONNECTOR, BOARD TO BOARD 3P	
Q008	8-729-303-37	TRANSISTOR 2SD655E		CN007	1-563-622-21	CONNECTOR, FLEXIBLE 19P	
Q009	8-729-303-37	TRANSISTOR 2SD655E		CN008	*1-506-482-11	PIN, CONNECTOR 3P	
<u>RESISTOR</u>				<u>DIODE</u>			
R002	1-249-429-11	METAL 10K 5% 1/4W		D001	8-719-974-65	DIODE GL451V (LED)	
R003	1-249-429-11	METAL 10K 5% 1/4W		D004	8-719-109-93	DIODE RD6.2ESB2	
R004	1-249-429-11	METAL 10K 5% 1/4W		D005	8-719-109-93	DIODE RD6.2ESB2	
R005	1-249-428-11	METAL 8.2K 5% 1/4W		D006	8-719-109-93	DIODE RD6.2ESB2	
R007	1-249-428-11	METAL 8.2K 5% 1/4W		D007	8-719-109-93	DIODE RD6.2ESB2	
R009	1-249-429-11	METAL 10K 5% 1/4W		<u>IC</u>			
R010	1-249-429-11	METAL 10K 5% 1/4W		IC002	8-759-938-12	IC BA10324	
R011	1-249-417-11	METAL 1K 5% 1/4W		IC004	△8-759-234-03	IC TA8424F	
R012	1-249-417-11	METAL 1K 5% 1/4W		<u>PHOTO SENSOR</u>			
*****				PH001	8-759-144-33	PHOTO SENSOR PS6002	
*A-6754-218-A MD-49 BOARD, COMPLETE (Ref.No.9000 series)				PH002	8-759-144-33	PHOTO SENSOR PS6002	
*****				<u>IC LINK</u>			
<u>CAPACITOR</u>				PS001	1-535-685-91	IC LINK (ICP-N20-T104)	
C001	1-161-494-00	CERAMIC 0.022MF 25V		<u>TRANSISTOR</u>			
C002	1-161-494-00	CERAMIC 0.022MF 25V		Q001	8-729-921-53	PHOTO TRANSISTOR PT483F1	
C003	1-126-157-11	ELECT 10MF 20% 16V		Q002	8-729-921-53	PHOTO TRANSISTOR PT483F1	
C004	1-161-379-00	CERAMIC 0.01MF 30% 16V		<u>RESISTOR</u>			
C005	1-126-157-11	ELECT 10MF 20% 16V		R001	1-249-423-11	CARBON 3.3K 5% 1/4W	
C006	1-124-589-11	ELECT 47MF 20% 16V		R002	1-249-423-11	CARBON 3.3K 5% 1/4W	
C008	1-164-159-11	CERAMIC 0.1MF 50V		R003	1-249-426-11	CARBON 5.6K 5% 1/4W	
C009	1-164-159-11	CERAMIC 0.1MF 50V		R004	1-249-426-11	CARBON 5.6K 5% 1/4W	
C011	1-162-849-11	CERAMIC 0.068MF 10% 50V		R005	1-249-415-11	CARBON 680 5% 1/4W	
C012	1-162-849-11	CERAMIC 0.068MF 10% 50V		R006	1-249-441-11	CARBON 100K 5% 1/4W	
C013	1-162-849-11	CERAMIC 0.068MF 10% 50V		R007	1-249-441-11	CARBON 100K 5% 1/4W	
C014	1-124-160-11	ELECT 1MF 20% 50V		R008	1-249-425-11	CARBON 4.7K 5% 1/4W	
C016	1-124-589-11	ELECT 47MF 20% 16V					
C017	1-126-162-11	ELECT 3.3MF 20% 25V					
C018	1-124-589-11	ELECT 47MF 20% 16V					
C019	1-124-589-11	ELECT 47MF 20% 16V					
C020	1-164-159-11	CERAMIC 0.1MF 50V					
C021	1-162-292-31	CERAMIC 680PF 10% 50V					
C022	1-164-159-11	CERAMIC 0.1MF 50V					
C025	1-102-074-00	CERAMIC MELF 0.001MF 10% 50V					

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

MD-49

MF-101

Ref. No.	Part No.	Description	Remark
R009	1-249-409-11	CARBON 220 5% 1/4W	
R010	1-249-425-11	CARBON 4.7K 5% 1/4W	
R011	1-249-437-11	CARBON 47K 5% 1/4W	
R012	1-249-421-11	CARBON 2.2K 5% 1/4W	
R013	1-249-429-11	CARBON 10K 5% 1/4W	
R014	1-249-426-11	CARBON 5.6K 5% 1/4W	
R015	1-249-437-11	CARBON 47K 5% 1/4W	
R016	1-249-421-11	CARBON 2.2K 5% 1/4W	
R019	△ 1-249-377-11	CARBON 0.47 5% 1/4W	F
R020	1-249-406-11	CARBON 120 5% 1/4W	
R021	1-249-383-11	CARBON 1.5 5% 1/4W	
R022	1-249-408-11	CARBON 180 5% 1/4W	
R023	1-249-414-11	CARBON 560 5% 1/4W	
R024	1-249-417-11	CARBON 1K 5% 1/4W	
R025	1-247-891-00	CARBON 330K 5% 1/4W	
R027	1-249-383-11	CARBON 1.5 5% 1/4W	
R028	1-249-383-11	CARBON 1.5 5% 1/4W	
<u>SWITCH</u>			
S001	1-570-953-11	SWITCH, PUSH (1 KEY)	
S002	1-570-953-11	SWITCH, PUSH (1 KEY)	

*A-6756-051-A	MF-101 BOARD, COMPLETE (SLV-777UB)	***** (Ref.No. 9000 series)	
*A-6756-043-A	MF-101 BOARD, COMPLETE (SLV-777VP)	***** (Ref.No. 9000 series)	
*A-6756-034-A	MF-101 BOARD, COMPLETE (SLV-777/AS/NC)	***** (Ref.No. 9000 series)	
*3-744-056-01	COVER, LED		
*3-749-306-01	PLATE, GROUND, MF		
<u>CAPACITOR</u>			
C102	1-162-282-31	CERAMIC 100PF 10% 50V	
C104	1-162-282-31	CERAMIC 100PF 10% 50V	
C106	1-162-282-31	CERAMIC 100PF 10% 50V	
C108	1-162-282-31	CERAMIC 100PF 10% 50V	
C109	1-161-379-00	CERAMIC 0.01MF 30% 16V	
C111	1-161-379-00	CERAMIC 0.01MF 30% 16V	
C112	1-162-286-31	CERAMIC 220PF 10% 50V	
C113	1-126-157-11	ELECT 10MF 20% 10V	
<u>CONNECTOR</u>			
CN101	1-569-669-11	CONNECTOR, BOARD TO BOARD 16P	
CN102	1-569-815-11	CONNECTOR, BOARD TO BOARD 21P	

Ref. No.	Part No.	Description	Remark
CN103	1-506-483-21	PIN, CONNECTOR 4P	
CN104	1-506-490-21	PIN, CONNECTOR 11P	
CN105	1-506-485-11	PIN, CONNECTOR 6P	
<u>JACK</u>			
CNJ101	1-562-808-11	JACK (MIC)	
CNJ102	1-565-669-21	JACK, SMALL TYPE (HEADPHONES)	
CNJ104	1-565-735-21	JACK, PIN 3P (LINE IN 2)	
CNJ105	1-568-611-11	SOCKET, DIN (SMALL TYPE) 5P (CONTROL L)	
<u>COMPOSITION CIRCUIT BLOCK</u>			
CP101	1-233-220-11	COMPOSITION CIRCUIT BLOCK	
CP102	1-232-656-11	COMPOSITION CIRCUIT BLOCK	
<u>DIODE</u>			
D101	8-719-955-04	DIODE PY5504S-1 (POWER) (SLV-777/AS/VP/NC)	
D101		DIODE BRPG5041XK (POWER) (SLV-777UB)	
D102	8-719-955-04	DIODE PY5504S-1 (POWER) (SLV-777/AS/VP/NC)	
D102		DIODE BRPG5041XK (POWER) (SLV-777UB)	
D103	8-719-110-36	DIODE RD13ES-B2	
D104	8-719-109-93	DIODE RD6.2ES-B2	
D105	8-719-911-19	DIODE ISS119	
D106	8-719-911-19	DIODE ISS119	
D107	8-719-109-93	DIODE RD6.2ES-B2	
D110	8-719-946-30	DIODE SLR-34DC3 (SYNCHRO EDIT)	
<u>COIL</u>			
L101	1-410-336-11	INDUCTOR 220UH	
L102	1-410-336-11	INDUCTOR 220UH	
L103	1-410-336-11	INDUCTOR 220UH	
L104	1-410-336-11	INDUCTOR 220UH	
<u>TRANSISTOR</u>			
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE (SLV-777UB)	
Q102	8-729-900-89	TRANSISTOR DTC144ES (SLV-777UB)	
<u>RESISTOR</u>			
R101	1-249-407-11	CARBON 150 5% 1/4W	
R102	1-249-407-11	CARBON 150 5% 1/4W	
R104	1-249-433-11	CARBON 22K 5% 1/4W	
R106	1-249-421-11	CARBON 2.2K 5% 1/4W	
R108	1-249-423-11	CARBON 3.3K 5% 1/4W	
R109	1-249-425-11	CARBON 4.7K 5% 1/4W	
R110	1-249-429-11	CARBON 10K 5% 1/4W	
R111	1-249-433-11	CARBON 22K 5% 1/4W	
R112	1-249-407-11	CARBON 150 5% 1/4W	
R113	1-249-407-11	CARBON 150 5% 1/4W	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R114	1-249-427-11	CARBON	6. 8K 5% 1/4W	C203	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
R115	1-249-417-11	CARBON	1K 5% 1/4W	C204	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
R116	1-249-438-11	CARBON	56K 5% 1/4W	C205	1-162-847-11	CERAMIC 0. 047MF	10% 16V
R117	1-249-423-11	CARBON	3. 3K 5% 1/4W	C206	1-164-232-11	CERAMIC CHIP 0. 01MF	50V
R118	1-249-433-11	CARBON	22K 5% 1/4W				
R121	1-247-804-11	CARBON	75 5% 1/4W	C207	1-125-486-11	ELECT 0. 22MF	5. 5V
R124	1-249-426-11	CARBON	5. 6K 5% 1/4W	C208	1-126-157-11	ELECT 10MF	20% 16V
R125	1-249-428-11	CARBON	8. 2K 5% 1/4W	C209	1-126-154-11	ELECT 47MF	20% 6. 3V
R126	1-249-426-11	CARBON	5. 6K 5% 1/4W	C210	1-164-232-11	CERAMIC CHIP 0. 01MF	50V
R127	1-249-428-11	CARBON	8. 2K 5% 1/4W	C211	1-163-809-11	CERAMIC CHIP 0. 047MF	10% 25V
R128	1-249-405-11	CARBON	100 5% 1/4W	C212	1-126-096-11	ELECT 10MF	20% 35V
R129	1-249-417-11	CARBON	1K 5% 1/4W	C214	1-124-589-11	ELECT 47MF	20% 16V
VARIABLE RESISTOR				C215	1-164-232-11	CERAMIC CHIP 0. 01MF	50V
RV101	1-238-420-11	RES, VAR, CARBON 10K (PHONE LEVEL)		C218	1-126-163-11	ELECT 4. 7MF	20% 16V
RV102	1-241-061-11	RES, VAR, CARBON 2K (SHARPNESS)		C219	1-126-163-11	ELECT 4. 7MF	20% 16V
RV103	1-241-062-11	RES, VAR, CARBON 20K (REC LEVEL L)		C220	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
RV104	1-241-062-11	RES, VAR, CARBON 20K (REC LEVEL R)		C221	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
SWITCH				C222	1-164-232-11	CERAMIC CHIP 0. 01MF	50V
S101	1-571-977-11	SWITCH, TACTIL (POWER)		C223	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
S102	1-571-977-11	SWITCH, TACTIL (EJECT)		C224	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
S103	1-571-977-11	SWITCH, TACTIL (SYNCHRO EDIT)		C225	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
S104	1-571-977-11	SWITCH, TACTIL (EDIT MONITOR)		C226	1-163-037-11	CERAMIC CHIP 0. 022MF	10% 25V
S105	1-570-854-11	SWITCH, SLIDE (COMMANDE MODE)		C230	1-126-160-11	ELECT 1MF	20% 50V
S106	1-571-977-11	SWITCH, TACTIL (VPS ON/OFF) (SLV-777VP)		C231	1-126-160-11	ELECT 1MF	20% 50V
*****				C232	1-164-232-11	CERAMIC CHIP 0. 01MF	50V
*A-6756-033-A	MF-94 BOARD, COMPLETE (SLV-777/AS) ***** (Ref. No. 9000 series)			C233	1-124-472-11	ELECT 470MF	20% 6. 3V
*A-6756-036-A	MF-94 BOARD, COMPLETE (SLV-777NC) ***** (Ref. No. 9000 series)			C234	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
*A-6756-042-A	MF-94 BOARD, COMPLETE (SLV-777VP) ***** (Ref. No. 9000 series)			CONNECTOR			
*A-6756-052-A	MF-94 BOARD, COMPLETE (SLV-777UB) ***** (Ref. No. 9000 series)			CN201	1-569-814-11	CONNECTOR, BOARD TO BOARD 21P	
*3-682-419-51	HOLDER, P. C. B			CN202	1-568-080-11	CONNECTOR (RECEPTALE) 22P	
*3-743-637-01	HOLDER, FL			CN203	1-568-079-11	CONNECTOR (RECEPTALE) 20P	
BUZZER				CN204	*1-569-666-11	PIN, CONNECTOR (PC BOARD) 5P	
BZ201	1-529-080-11	BUZZER, PIEZOELECTRIC		CN205	1-569-667-11	CONNECTOR, BOARD TO BOARD 8P	
CAPACITOR				CN207	1-506-468-11	PIN, CONNECTOR 3P	
C202	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	CN208	*1-569-666-11	PIN, CONNECTOR (PC BOARD) 5P	
				VARIABLE CAPACITOR			
				CV201	1-141-291-11	CAP, TRIMMER 20PF	
				DIODE			
				D201	8-719-911-19	DIODE 1SS119	
				D202	8-719-911-19	DIODE 1SS119	
				D203	8-719-911-19	DIODE 1SS119	
				D204	△8-719-911-19	DIODE 1SS119	
				D206	8-719-104-34	DIODE 1S2836	
				D208	△8-719-105-82	DIODE RD5. 1M-B2	
				D209	8-719-106-08	DIODE RD6. 2M-B2	
				D211	8-719-400-18	DIODE MA152WK	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

MF-94

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D212	8-719-400-18	DIODE MA152WK		<u>RESISTOR</u>			
D216	8-719-400-18	DIODE MA152WK		R201	1-216-073-00	METAL GLAZE 10K 5%	1/10W
D217	8-719-400-18	DIODE MA152WK		R202	1-216-081-00	METAL GLAZE 22K 5%	1/10W
D218	8-719-104-34	DIODE 1S2836		R203	1-216-017-00	METAL GLAZE 47 5%	1/10W
D219	8-719-106-08	DIODE RD6. 2M-B2		R204	1-216-095-00	METAL GLAZE 82K 5%	1/10W
<u>IC</u>				R205	1-216-025-00	METAL GLAZE 100 5%	1/10W
IC201	8-759-504-10	IC MB89794B-PAL		R206	1-216-061-00	METAL GLAZE 3. 3K 5%	1/10W (SLV-777NC)
IC202	8-759-748-54	IC CAT35C202P		R206	1-216-068-00	METAL GLAZE 6. 2K 5%	1/10W (SLV-777UB)
IC203	8-759-502-50	IC S-8053HNB		R206	1-216-065-00	METAL GLAZE 4. 7K 5%	1/10W (SLV-777/AS)
IC204	8-759-947-53	IC S-8054ALR		R206	1-216-063-91	METAL GLAZE 3. 9K 5%	1/10W (SLV-777VP)
IC205	8-759-961-38	IC BA6138		R207	1-216-061-00	METAL GLAZE 3. 3K 5%	1/10W (SLV-777TUB/VP)
<u>RESISTOR</u>				R207	1-216-063-91	METAL GLAZE 3. 9K 5%	1/10W (SLV-777NC)
JR001	1-216-295-00	METAL GLAZE 0 5% 1/10W		R207	1-216-068-00	METAL GLAZE 6. 2K 5%	1/10W (SLV-777/AS)
<u>COIL</u>				R208	1-216-073-00	METAL GLAZE 10K 5%	1/10W
L201	1-408-422-00	INDUCTOR 120UH		R210	1-216-073-00	METAL GLAZE 10K 5%	1/10W
L203	1-410-336-11	INDUCTOR 220UH		R211	1-216-073-00	METAL GLAZE 10K 5%	1/10W
L204	1-410-517-11	INDUCTOR 47UH		R212	1-216-061-00	METAL GLAZE 3. 3K 5%	1/10W
L205	1-410-501-11	INDUCTOR 2. 2UH		R213	1-216-001-00	METAL GLAZE 10 5%	1/10W
L206	1-410-501-11	INDUCTOR 2. 2UH		R214	1-216-049-00	METAL GLAZE 1K 5%	1/10W
L207	1-410-501-11	INDUCTOR 2. 2UH		R215	1-216-085-00	METAL GLAZE 33K 5%	1/10W
L208	1-410-501-11	INDUCTOR 2. 2UH (SLV-777VP)		R216	1-216-037-00	METAL GLAZE 330 5%	1/10W
L209	1-410-361-21	INDUCTOR 12UH		R217	1-216-061-00	METAL GLAZE 3. 3K 5%	1/10W
L210	1-410-501-11	INDUCTOR 2. 2UH		R222	1-216-035-00	METAL GLAZE 270 5%	1/10W
L211	1-410-501-11	INDUCTOR 2. 2UH		R223	1-216-035-00	METAL GLAZE 270 5%	1/10W
L212	1-410-501-11	INDUCTOR 2. 2UH		R224	1-216-035-00	METAL GLAZE 270 5%	1/10W
L213	1-410-501-11	INDUCTOR 2. 2UH		R225	1-216-035-00	METAL GLAZE 270 5%	1/10W
L214	1-410-501-11	INDUCTOR 2. 2UH		R226	1-216-035-00	METAL GLAZE 270 5%	1/10W
L215	1-410-501-11	INDUCTOR 2. 2UH		R227	1-216-035-00	METAL GLAZE 270 5%	1/10W
L216	1-410-501-11	INDUCTOR 2. 2UH		R228	1-216-033-00	METAL GLAZE 220 5%	1/10W
L217	1-410-316-11	INDUCTOR 1UH		R229	1-216-109-00	METAL GLAZE 330K 5%	1/10W
L218	1-410-316-11	INDUCTOR 1UH		R230	1-216-033-00	METAL GLAZE 220 5%	1/10W
<u>INDICATOR</u>				R231	1-216-109-00	METAL GLAZE 330K 5%	1/10W
ND201	1-519-633-11	INDICATION TUBE, FLUORESCENT		R242	1-216-037-00	METAL GLAZE 330 5%	1/10W
<u>TRANSISTOR</u>				R243	1-216-073-00	METAL GLAZE 10K 5%	1/10W (SLV-777/NC/UB)
Q201	8-729-271-23	TRANSISTOR 2SC2712		R244	1-216-061-00	METAL GLAZE 3. 3K 5%	1/10W
Q202	8-729-271-23	TRANSISTOR 2SC2712		R245	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q205	8-729-901-01	TRANSISTOR DTC144EK		R246	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q206	8-729-901-01	TRANSISTOR DTC144EK		R247	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R248	1-249-413-11	CARBON 470 5%	1/4W
				R249	1-216-049-00	METAL GLAZE 1K 5%	1/10W
				R250	1-216-186-00	METAL GLAZE 330 5%	1/8W
				R251	1-216-037-00	METAL GLAZE 330 5%	1/10W
				R252	1-216-037-00	METAL GLAZE 330 5%	1/10W
				R253	1-216-089-00	METAL GLAZE 47K 5%	1/10W
				R254	1-216-089-00	METAL GLAZE 47K 5%	1/10W
				R255	1-216-073-00	METAL GLAZE 10K 5%	1/10W
				R256	1-216-073-00	METAL GLAZE 10K 5%	1/10W

When indicating parts by reference number, please include the board name.

MF-94**RM-42****SD-4****VP-24**

Ref. No.	Part No.	Description	Remark
R301	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R302	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R303	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R304	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R305	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R306	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R307	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R308	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R310	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R312	1-216-295-00	METAL GLAZE 0 5% 1/10W	

VARIABLE RESISTOR

RV201	1-238-016-11	RES, ADJ, CARBON 10K	
RV202	1-238-016-11	RES, ADJ, CARBON 10K	

CRYSTAL

X201	1-567-098-00	VIBRATOR, CRYSTAL	
X202	1-579-223-11	OSCILLATOR, CERAMIC	

*1-635-214-31 RM-42 BOARD (Ref.No.9000 series)

CONNECTOR

CN501	*1-565-042-11	HOUSING, CONNECTOR(PC BOARD)5P	
CN502	*1-565-042-11	HOUSING, CONNECTOR(PC BOARD)5P	

DIODE

D502	8-719-955-04	DIODE SLR-54MC3 (AUTO TRAKING)	
D503	8-719-302-07	DIODE SLR-54DC3 (EDIT MONITOR)	
D504	8-719-921-01	DIODE SLR-54VC3 (AUDIO INSERT)	
D505	8-719-921-01	DIODE SLR-54VC3 (VIDEO INSERT)	
D506	8-719-955-04	DIODE SLR-54MC3 (◀▶▶)	

*1-632-296-12 SD-4 BOARD (SLV-777VP)
***** (Ref.No.9000 series)

CAPACITOR

C850	1-130-474-11	MYLAR 0.0018MF 5% 50V	
C851	1-163-125-11	CERAMIC CHIP 220PF 5% 50V	
C852	1-164-505-11	CERAMIC CHIP 2.2MF 25V	
C854	1-124-906-11	ELECT 4.7MF 20% 50V	
C855	1-124-892-11	ELECT 47MF 20% 10V	
C857	1-163-031-11	CERAMIC CHIP 0.01MF 50V	

Ref. No. Part No. Description Remark

CONNECTOR

CN851	1-564-782-11	PIN, CONNECTOR 4P	
CN852	1-564-782-11	PIN, CONNECTOR 4P	

FILTER

FL850	1-527-943-11	FILTER, CERAMIC 4.16MHZ	
-------	--------------	-------------------------	--

IC

IC850	8-759-904-95	IC BA7077	
-------	--------------	-----------	--

COIL

L850	1-410-450-11	INDUCTOR 3.9MMH	
------	--------------	-----------------	--

TRANSISTOR

Q850	8-729-901-81	TRANSISTOR 2SC2412K	
Q851	8-729-901-81	TRANSISTOR 2SC2412K	

RESISTOR

R846	1-216-065-11	METAL GLAZE 4.7K 5% 1/10W	
R847	1-216-057-11	METAL GLAZE 2.2K 5% 1/10W	
R848	1-216-057-11	METAL GLAZE 2.2K 5% 1/10W	
R849	1-216-073-11	METAL GLAZE 10K 5% 1/10W	
R850	1-216-057-11	METAL GLAZE 2.2K 5% 1/10W	
R851	1-216-083-11	METAL GLAZE 27K 5% 1/10W	
R854	1-216-109-11	METAL GLAZE 330K 5% 1/10W	

*1-637-446-11 VP-24 BOARD (SLV-777VP)
***** (Ref.No.10000 series)

CAPACITOR

C001	1-164-044-11	CERAMIC CHIP 0.1MF 20% 50V	
C002	1-163-989-11	CERAMIC CHIP 0.033MF 10% 25V	
C003	1-163-035-00	CERAMIC CHIP 0.047MF 20% 50V	
C004	1-124-589-11	ELECT 47MF 20% 16V	
C005	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C003	1-163-035-00	CERAMIC CHIP 0.047MF 20% 50V	
C007	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C008	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C201	1-163-035-00	CERAMIC CHIP 0.047MF 20% 50V	
C202	1-163-035-00	CERAMIC CHIP 0.047MF 20% 50V	
C203	1-124-589-11	ELECT 47MF 20% 16V	
C204	1-163-035-00	CERAMIC CHIP 0.047MF 20% 50V	

When indicating parts by
reference number, please include
the board name.

VP-24

Ref. No.	Part No.	Description	Remark
<u>OSCILLATOR</u>			
CF001	1-567-160-21	OSCILLATOR, CERAMIC 4.19MHZ	
<u>CONNECTOR</u>			
CN102	1-563-528-11	CONNECTOR, BOARD TO BOARD 6P	
CN103	1-566-824-11	PIN, CONNECTOR (PC BOARD) 3P	
CN104	1-506-483-21	PIN, CONNECTOR 4P	
<u>DIODE</u>			
D201	8-719-400-18	DIODE 1S2837	
<u>RESISTOR</u>			
JR001	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR002	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR003	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR004	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR005	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR006	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR007	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR008	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR009	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR010	1-216-296-00	METAL GLAZE 0 5% 1/8W	
<u>RESISTOR</u>			
R001	1-216-119-00	METAL GLAZE 820K 5% 1/10W	
R002	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R003	1-216-119-00	METAL GLAZE 820K 5% 1/10W	
R004	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R005	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R006	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R007	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R008	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R009	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R010	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R011	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R012	1-216-073-00	METAL GLAZE 10K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
<u>MISCELLANEOUS</u>			

A-6761-129-A		HEAD BLOCK ASSY, ACE (AUDIO, AUDIO ERASE, CTL HEAD)	
△1-413-601-11		SWITCHING BLOCK (POWER BLOCK) (SLV-777/AS/NC)	
△1-413-608-11		SWITCHING BLOCK (POWER BLOCK) (SLV-777VP)	
△1-413-609-11		SWITCHING BLOCK (POWER BLOCK) (SLV-777UB)	
△1-466-328-31		MODULATOR, RF (RFU-2027) (RF MODULATOR) (SLV-777/AS/VP/NC)	
△1-466-347-31		MODULATOR, RF (RFU-2028) (RF MODULATOR) (SLV-777UB)	
1-466-346-31		SWITCH BLOCK, CONTROL (SW BLOCK)	
1-506-482-11		PIN, CONNECTOR 3P (FOR LOADING MOTOR)	
1-506-482-11		PIN, CONNECTOR 3P (FOR CAM MOTOR)	
1-506-483-21		PIN, CONNECTOR 4P (FOR AUDIO, AUDIO ERASE HEAD)	
1-543-647-11		HEAD, FE (FULL ERASE HEAD)	
1-558-924-41		CABLE, PIN (RF MODULATOR TO TUNER)	
1-571-920-11		SWITCH, ROTARY	
1-575-745-11		WIRE, FLAT TYPE (19 CORE) (MA BOARD TO MD BOARD)	
1-575-746-11		WIRE, FLAT TYPE (22 CORE) (MA BOARD TO VI BOARD)	
*1-633-460-11		PC BOARD, CA-41 (ON CAM MOTOR)	
M901	1-550-535-11	DRUM ASSY (DZH-17A) (DRUM MOTOR)	
M902	8-835-394-01	MOTOR, DC U-26F (CAPSTAN MOTOR)	
M903	X-3733-302-1	MOTOR ASSY (CAM MOTOR)	
M904	X-3727-784-1	MOTOR ASSY (LOADING MOTOR)	

<u>ACCESSORIES AND PACKING MATERIALS</u>			

1-465-472-11		REMOTE COMMANDER (RMT-V5B)	
1-551-086-31		CORD, CONNECTION	
1-551-513-00		CABLE, COAXIAL ASSY	
1-575-334-11		CORD, CONNECTION	
3-695-308-01		DRIVER, VOLUME	
*3-738-213-01		CASE, ACCESSORY	
*3-743-682-01		CUSHION (UPPER)	
*3-743-683-01		CUSHION (LOWER)	
*3-744-029-21		INDIVIDUAL CARTON (SLV-777UB)	
*3-744-029-31		INDIVIDUAL CARTON (SLV-777/AS)	
*3-744-029-41		INDIVIDUAL CARTON (SLV-777VP)	
*3-744-029-51		INDIVIDUAL CARTON (SLV-777NC)	
3-752-461-11		MANUAL, INSTRUCTION (SLV-777AS/UB) (ENGLISH)	
3-752-461-41		MANUAL, INSTRUCTION (SLV-777) (ITALIAN, PORTUGUESE)	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
3-752-461-51		MANUAL, INSTRUCTION (SLV-777VP) (FRENCH, GERMAN, ITALIAN, DUTCH)					
3-752-461-61		MANUAL, INSTRUCTION (SLV-777NC) (SPANISH, SWEDISH, DANISH, FINNISH)					
3-752-463-11		MANUAL, INSTANT INFORMATION (SLV-777AS/UB) (ENGLISH)					
3-752-463-41		MANUAL, INSTANT INFORMATION (SLV-777) (ITALIAN, PORTUGUESE)					
3-752-463-51		MANUAL, INSTANT INFORMATION (SLV-777VP) (FRENCH, GERMAN, ITALIAN, DUTCH)					
3-752-463-61		MANUAL, INSTANT INFORMATION (SLV-777NC) (SPANISH, SWEDISH, DANISH, FINNISH)					
*3-752-835-11		INSTRUCTION (SLV-777AS) (ENGLISH)					

HARDWARE LIST							

SET-SCREW							
7-621-732-08		SET-SCR, HEX. 2X3 FLAT POINT					
SCREW							
7-621-849-10		SCREW, WOOD +R 3.1X13					
7-627-552-08		SCREW, PRECISION +P 1.7X2.5					
7-628-254-00		SCREW +PS 2.6X5					
7-682-548-04		SCREW +P 3X8					
7-682-645-01		SCREW +PS 3X4					
7-685-646-79		SCREW +BVTP 3X8 TYPE2 IT-3					
7-685-647-79		SCREW +BVTP 3X10 TYPE2 IT-3					
7-685-648-79		SCREW +BVTP 3X12 TYPE2 IT-3					
7-682-547-04		SCREW +BVTT 3X6 (S)					
7-682-549-09		SCREW +BVTT 3X10 (S)					
STOP RING							
7-624-102-04		STOP RING 1.5, TYPE -E					

When indicating parts by reference number, please include the board name.

SECTION 7

ELECTRICAL ADJUSTMENTS

During the adjustment, see the Parts Arrangement Diagram relevant to the adjustment on page 236.

7-1. PRE-ADJUSTMENT PREPARATIONS

Necessary items and indications for total adjustment of electric circuit of this machine will be described in this chapter.

7-1-1. Instruments to be Used

- 1) Color TV
- 2) Oscilloscope 1 or 2 phenomena, band more than 15 MHz, delay mode, as provided.
- 3) Frequency counter (min, 8 digits)
- 4) PAL pattern generator
- 5) SECAM pattern generator (SLV-777VP only)
- 6) Digital voltmeter
- 7) Audio level meter
- 8) Audio generator
- 9) Attenuator
- 10) Distortion factor meter
- 11) Voice multiple signal generator
- 12) Alignment tape
Part code: H7099052H (MH-2)
- 13) HiFi alignment tape

7-1-2. Connection

Unless otherwise specified, connect and adjust the measuring instruments as shown in the following diagram.

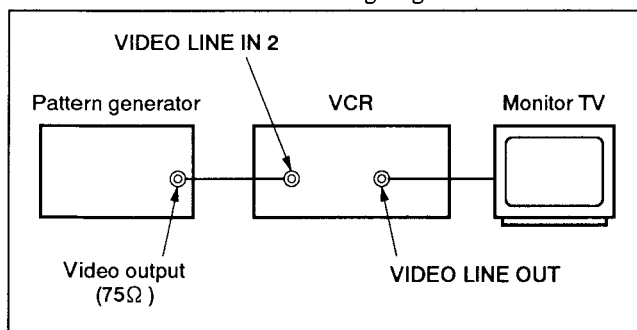


Fig. 7-1.

7-1-3. Setup for Adjustment

In this adjustment, PAL pattern generator is connected with LINE 1 input signal terminal. When check to tuner, connected AERIAL terminal. Check that the amplitudes of video signal SYNC signal, of picture portions, and of burst signals are flat at approximately 0.3, 0.7 and 0.3V, respectively, and that the level ratio of the burst signal and "red" signal are 0.30:0.66. Fig. 7-2. shows video signals (color bars) used in adjusting the video section.

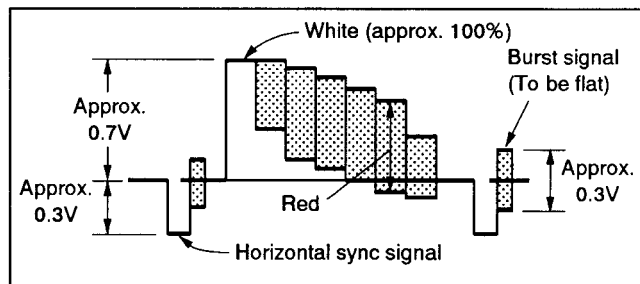


Fig. 7-2.

7-1-4. Alignment Tape (MH-2)

	Time	Video signal	Audio signal
1	10 min	Stair-step	6 kHz
2	5 min	—	3 kHz
3	10 min	Color bar	1 kHz
4	3 min	RF sweep	—

Table 7-1.

7-1-5. Specified I/O Level and Impedance

Input/output terminal

Video inputs	LINE IN: phono jacks
	EURO-AV: 21-pin (Pin ⑳) 1 Vp-p, 75Ω , unbalanced, sync negative
Audio inputs	LINE IN: phono jacks
	47 kΩ , -7.5 dBs (0 dBs=0.775 Vrms) EURO-AV: 21-pin (Pin ② and ⑥) More than 10 kΩ , -4 dBs
Video outputs	LINE OUT: phono jack
	EURO-AV: 21-pin (Pin ⑲) 1 Vp-p, 75Ω , unbalanced sync negative
Audio outputs	LINE OUT: phono jack
	-7.5 dBs at load
	impedance 47 kΩ
	Output impedance: less than 10 kΩ
	EURO-AV: 21-pin (Pins ① and ③)
	Output impedance: less than 1 kΩ
	-4 dBs with 10 kΩ load

7-1-6. Operating Method When the Front Panel Removed

When adjust with the front panel (SW BLOCK, JOG/SHUTTLE, JS-20 board and TK-12 board) removed, connect the resistors as shown below and operate with the remote commander.

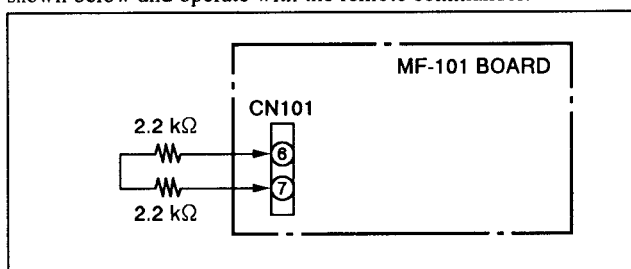
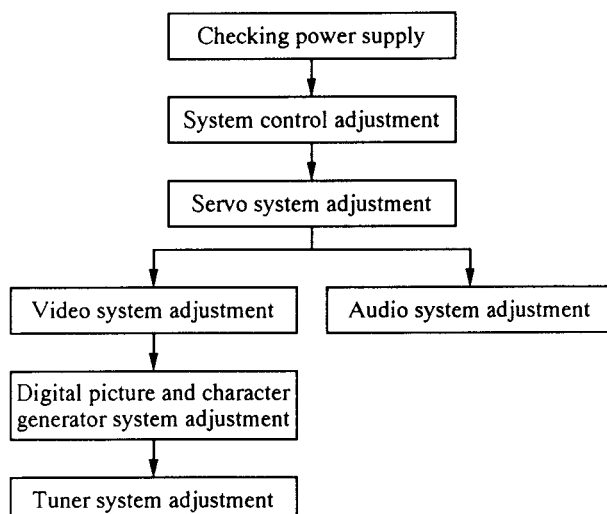


Fig. 7-3.

7-1-7. Adjusting Sequence

Make the electrical adjustment in the following sequence.



7-2. POWER SUPPLY CHECK (POWER BLOCK)

Mode	E-E
Measuring instrument	Digital voltmeter
UNSW 5.8V check	
Measurement point	Pin ① of CN411
Specified value	5.8 ± 0.25 Vdc
UNSW -30V check	
Measurement point	Pin ③ of CN412
Specified value	-30.0 ± 2.5 Vdc
UNSW 37V check	
Measurement point	Pin ⑨ of CN411
Specified value	37.0 ± 3.0 Vdc
SW 5V check	
Measurement point	Pin ③ of CN411
Specified value	5.00 ^{+0.15} _{-0.10} Vdc
SW 9V check	
Measurement point	Pin ⑬ of CN411
Specified value	9.0 ± 0.3 Vdc
SW 12V check	
Measurement point	Pin ⑪ of CN411
Specified value	12.0 ± 0.3 Vdc
MTR 12V check	
Measurement point	Pin ⑩ of CN412
Specified value	12.0 ± 0.3 Vdc
HEATER 3.2V check	
Measurement point	+ : Pin ⑤ of CN412 - : Pin ④ of CN412
Specified value	3.2 ± 0.2V

Checking method:

- 1) Confirm that each voltage meets its specified value.

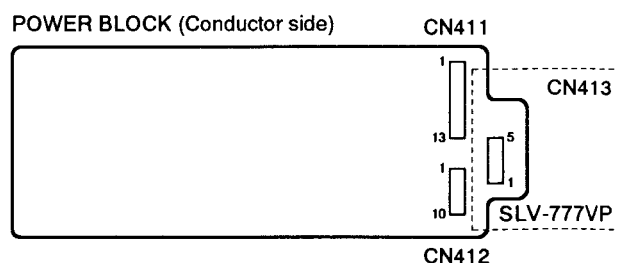


Fig. 7-4.

7-3. SYSTEM CONTROL ADJUSTMENT

7-3-1. Clock Adjustment (MF-94 Board)

Measurement Point	Pin ⑧ of IC201
Measuring Instrument	Interval counter
Adjusting Element	CV201
Specified Value	0.1249995 ± 0.0000005 sec

Connection:

- 1) Connect the connecting point of R109 and R110 on the MF-101 board to ground.

Adjusting method:

- 1) Pass a 9-state binary counter through Pin ⑧ of IC201 to divide the 4096 Hz frequency nine times and transform to 8 Hz. Measure the cycle.
- 2) Adjust CV001 so that an 8 Hz cycle equals 0.1249995 ± 0.0000005 sec.

Note: Do not adjust CV001 except when replacing microcomputers.

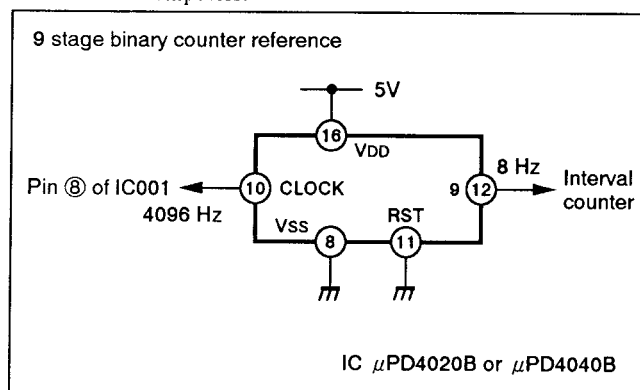


Fig. 7-5.

7-4. SERVO SYSTEM ADJUSTMENT

7-4-1. Switching Position Adjustment (MA-62 Board)

Mode	PB
Signal	Alignment tape: SP stair-step section
Measurement Point	CH1: Pin ⑮ of CN562 CH2: Pin ⑫ of CN582 (RF SWP)
Measuring Instrument	Oscilloscope
Adjusting Element	RV501
Specified Value	$6.5 \pm 0.5H$ ($416 \pm 32 \mu\text{sec}$)

Adjusting method:

- 1) Once set to STOP mode, then to PB mode.
- 2) Check that the switching position is $6.5 \pm 0.5H$. ($416 \pm 32 \mu\text{sec}$)
If not meet the specified value, turn RV501 and repeat steps 1) to 2).

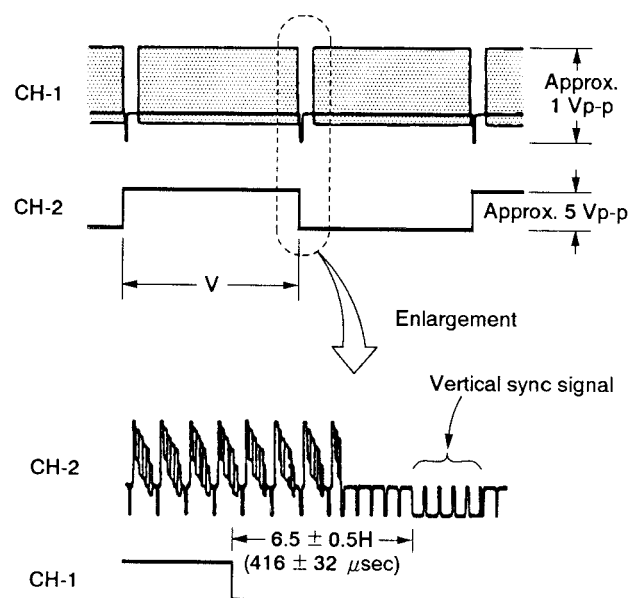


Fig. 7-6.

7-5. VIDEO SYSTEM ADJUSTMENTS

Adjust the video system in the following sequence as a rule. The color video signal supplied from the pattern generator is used as a video input signal for video system adjustment in the recording mode.

Make sure that sync and color burst signals meet requirements specified at setup of adjustment shown in Fig. 7-2.

[Adjusting sequence]

- 7-5-1. Playback Y Signal Level Adjustment
- 7-5-2. Y Signal NR Level Adjustment
- 7-5-3. Sync AGC Adjustment
- 7-5-4. Sync Tip Carrier Set and Deviation Adjustment
- 7-5-5. White Clip, Dark Clip Adjustment
- 7-5-6. Recording Y Signal Level Adjustment
- 7-5-7. Recording Chroma Level Adjustment
- 7-5-8. PAL JOG AFC Adjustment
- 7-5-9. 0.5H CCD Level Adjustment
- 7-5-10. SECAM Discrimination Adjustment

7-5-1. Playback Y Signal Level Adjustment (YC-65 Board)

Mode	PB
Signal	Alignment tape: SP color bar section
Measurement Point	VIDEO LINE OUT terminal
Measuring Instrument	Oscilloscope
Adjusting Element	RV708
Specified Value	1.00 ± 0.05 Vp-p

- Note:** 1) Make this adjustment with the EDIT ON/OFF button set to off.
2) VIDEO LINE OUT terminal must be terminated at $75\Omega \pm 1\%$.

Adjusting method:

- 1) With RV708, adjust the VIDEO signal level to 1.00 ± 0.05 Vp-p.

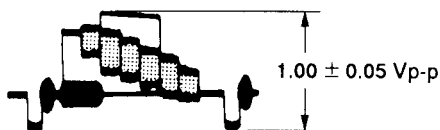


Fig. 7-7.

7-5-2. Y Signal NR Level Adjustment (YC-65 Board)

Mode	PB
Signal	Alignment tape: SP color bar section
Measurement Point	Pin ⑩ of IC701
Measuring Instrument	Oscilloscope
Adjusting Element	RV707
Specified Value	Less than 30 mVp-p

Adjusting method:

- 1) Adjust to eliminate level differences for each H step with RV707.

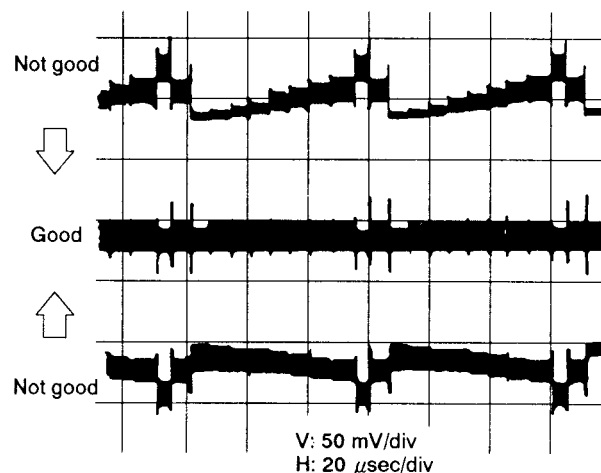


Fig. 7-8.

7-5-3. Sync AGC Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	VIDEO LINE OUT terminal
Measuring Instrument	Oscilloscope
Adjusting Element	RV701
Specified Value	1.00 ± 0.05 Vp-p

Note: VIDEO LINE OUT terminal must be terminated at 75Ω .

Adjusting method:

- 1) With RV701, adjust the VIDEO signal level to 1.00 ± 0.05 Vp-p.

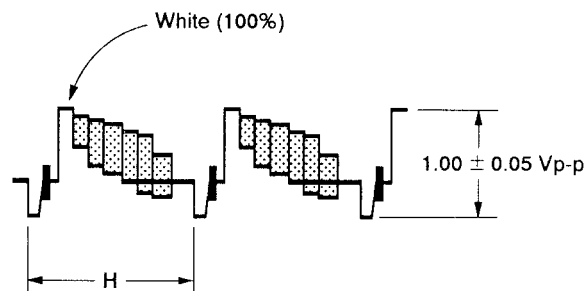


Fig. 7-9. SYNC AGC adjustment

7-5-4. Sync Tip Carrier Set and Deviation Adjustment (YC-65 Board)

Before starting the adjustment, be sure to check that recording Y signal level adjustment has been completed.

Sync tip carrier set	
Mode	E-E
Signal	No signal (Note 2)
Measurement Point	Pin ② of IC701
Measuring Instrument	Frequency counter
Adjusting Element	RV703
Specified Value	3.80 ± 0.05 MHz
Deviation adjustment	
Mode	REC and PB
Signal	Color bar
Measurement Point	VIDEO LINE OUT terminal
Measuring Instrument	Oscilloscope
Adjusting Element	RV702
Specified Value	1.00 ± 0.05 Vp-p

- Note**
- 1) VIDEO LINE OUT terminal must be terminated at 75Ω .
 - 2) To make no signal input, insert a shorting plug into VIDEO LINE IN 2 terminal.

Adjusting method:

- 1) Make a no signal state and select the E-E mode.
- 2) Connect the frequency counter to the Pin ② of IC701 and adjust to 3.80 ± 0.05 MHz with RV703.
- 3) Input the color bar signal to make recording.
- 4) Playback the recorded tape portion and check that the playback Y signal level is 1.00 ± 0.05 Vp-p.

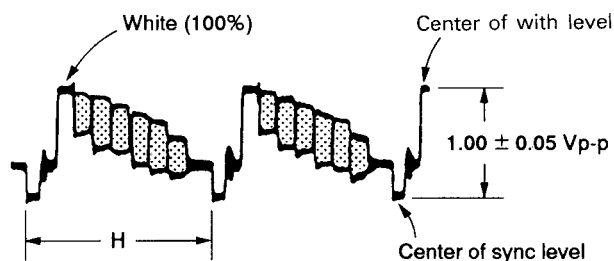


Fig. 7-10. Deviation adjustment

- 5) When the specified value is not met, input the color bar signal to select the E-E mode. Adjust RV702 to correct a playback Y signal level error, and then, repeat the steps 1) through 4) above.

7-5-5. White Clip and Dark Clip Adjustments (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ② of IC701
Measuring Instrument	Oscilloscope
Adjusting Element	White clip: RV705 Dark clip: RV704
Specified Value	White clip: $180 \pm 10\%$ Dark clip: $40 \pm 10\%$

Adjusting method:

- 1) With RV705, adjust the white clip level to $180 \pm 10\%$ of the white level (100%).
- 2) With RV704, adjust the dark clip level to $40 \pm 10\%$ of the white level (100%).

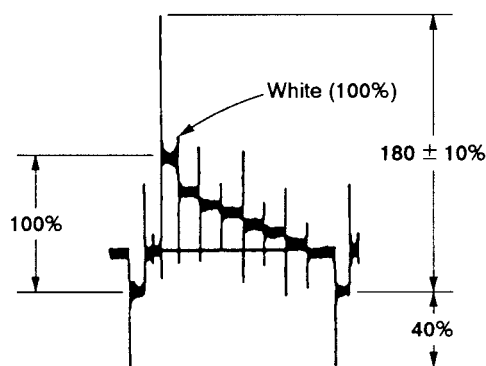


Fig. 7-11.

7-5-6. Recording Y Signal Level Adjustment (YC-65 Board/RP-63 Board)

Mode	RE
Signal	No signal
Measurement Point	Pin ③ of CN804 (RP-63 board)
Measuring Instrument	Oscilloscope
Adjusting Element	RV710 (YC-65 board)
Specified Value	1.7 ± 0.1 Vp-p

Adjusting method:

- 1) With RV710, adjust the Y REC RF signal level to 1.7 ± 0.1 Vp-p.

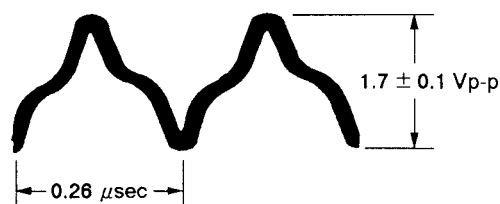


Fig. 7-12.

7-5-7. Recording Chroma Level Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ⑦ of CN701
Measuring Instrument	Oscilloscope
Adjusting Element	RV801
Specified Value	100 ± 10 mVp-p

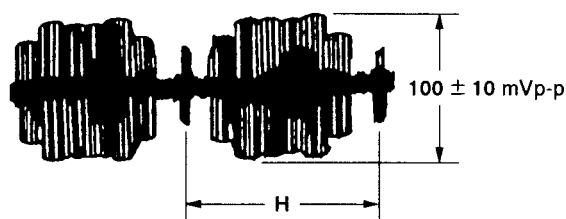


Fig. 7-13.

7-5-8. PAL JOG AFC Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ⑩ of IC860
Measuring Instrument	Digital voltmeter
Adjusting Element	RV860
Specified Value	2.65 ± 0.05 Vdc

Adjusting method:

- 1) Adjust RV860 so that the voltage at Pin ⑩ of IC860 become 2.65 ± 0.05 Vdc.
At this time confirm that the cycle of delta wave at Pin ⑫ of IC860 is $32 \mu\text{sec}$.

Pin ⑫ of IC860

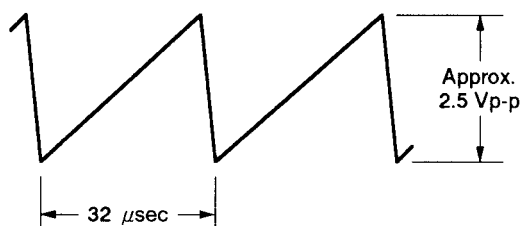


Fig. 7-14.

7-5-9. 0.5H CCD Level Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ② of IC802
Measuring Instrument	Oscilloscope
Adjusting Element	RV861
Specified Value	Same signal level with Pin ⑦ of IC802.

Adjusting method:

- 1) Measure the signal level at Pin ⑦ of IC802.
(Approx. 2 Vp-p)
- 2) Adjust RV861 so that the signal levels at Pins ② and ⑦ of IC802 become same.

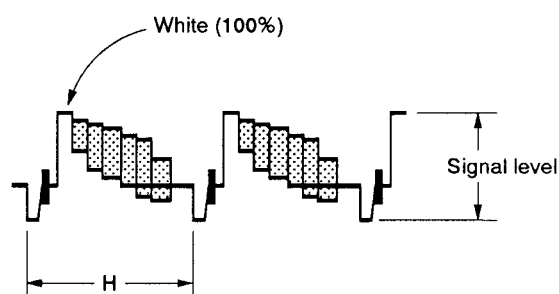


Fig. 7-15.

7-5-10. SECAM Discrimination Adjustment (SD-4 Board) (SLV-777VP Only)

Mode	E-E
Signal	SECAM Color bar
Measurement Point	Pin ⑨ of IC850
Measuring Instrument	Oscilloscope
Adjusting Element	RV850
Specified Value	4.5 ± 0.1 Vp-p

Adjusting method:

- 1) Adjust RV850 so that the amplitude of $1/2$ fH waveform becomes 4.5 ± 0.1 Vp-p.

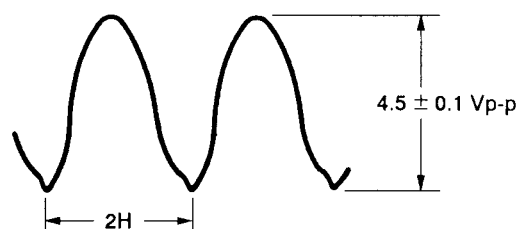


Fig. 7-16.

7-6. DIGITAL PICTURE AND CHARACTER GENERATOR SYSTEM ADJUSTMENTS

- Connect the monitor TV to EURO-AV connector (Pin ①⑨ of CNJ005 on IO-40 board) or Pin ①⑧ of CN562 on MA-62 board, then perform the adjustment.

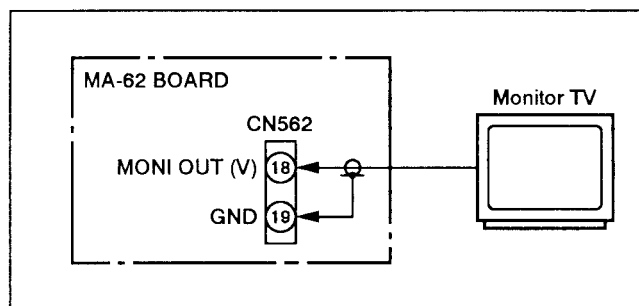


Fig. 7-17.

- When adjusting the PI-20 board, remove the HF-9 board as necessity.

7-6-1. AGC Adjustment (PI-20 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ①④ of IC208
Measuring Instrument	Oscilloscope
Adjusting Element	RV201
Specified Value	2.05 ± 0.1 Vp-p

Adjusting method:

- Adjust with RV201 so that it becomes 2.05 ± 0.1 Vp-p.

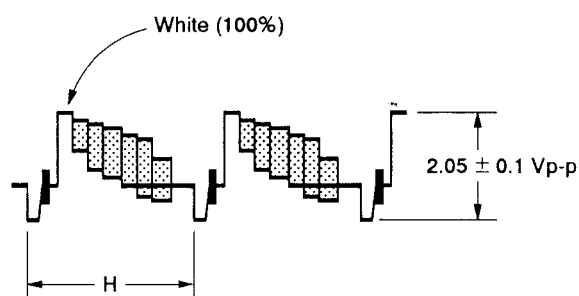


Fig. 7-18.

7-6-2. Read Clock Adjustment (DG-11 Board)

Mode	E-E (EDIT MONITOR)
Signal	Color bar
Measurement Point	EURO AV IN/OUT connector
Measuring Instrument	Monitor TV
Adjusting Element	T102
Specified Value	A=B

Adjusting method:

- Adjust T102 so that the child pictures are positioned symmetrically.

Note: Adjust the character position following the steps in "Character Position Adjustment".

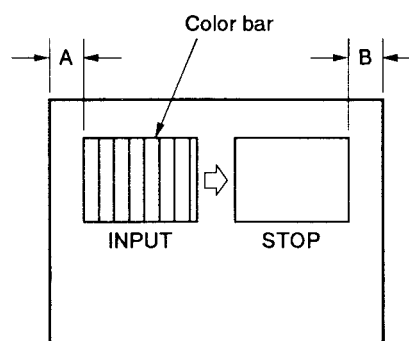


Fig. 7-19.

7-6-3. Write Clock Adjustment (DG-11 Board)

Mode	E-E
Signal	Color bar
Measurement Point	EURO AV IN/OUT connector
Measuring Instrument	Monitor TV
Adjusting Element	T101
Specified Value	A=B

Adjusting method:

- Adjust T101 so that the image center of the child picture in INPUT side matches with the child picture frame center.

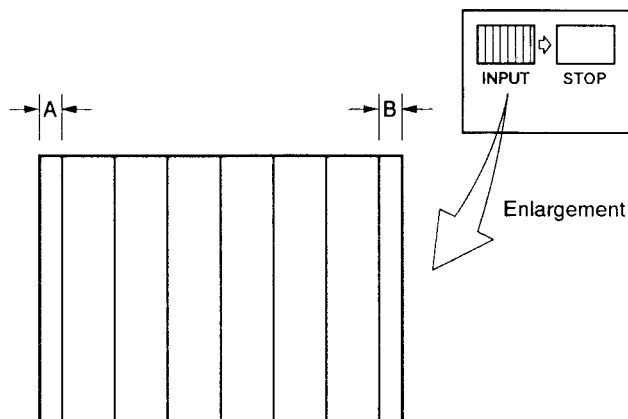


Fig. 7-20.

7-6-4. TINT Adjustment (DG-11 Board)

Mode	E-E (EDIT MONITOR)
Signal	Color bar
Measurement Point	Pin ⑩ of IC102
Measuring Instrument	Oscilloscope
Adjusting Element	RV104
Specified Value	A=B

Adjusting method:

- 1) Adjust RV104 so that the level A and level B become same.

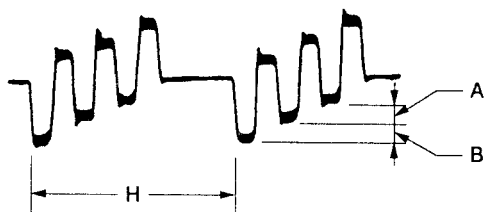


Fig. 7-21.

7-6-5. Clamp Level Adjustment (DG-11 Board)

Mode	PB (P in P)
Signal	Color bar
Measurement Point	Pin ⑥ of CN101
Measuring Instrument	Oscilloscope
Adjusting Element	RV101
Specified Value	A=0V

Adjusting method:

- 1) Adjust RV101 so that the pedestal levels of parent picture match with the levels of child picture.

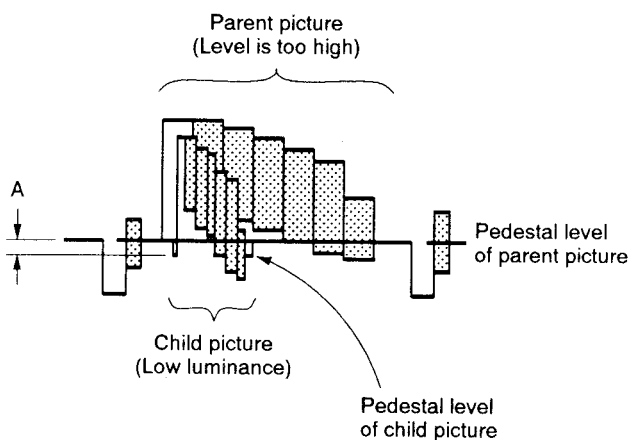


Fig. 7-22.

7-6-6. Hue and Color Level Adjustment (DG-11 Board)

Mode	E-E (P in P)
Signal	Color bar
Measurement Point	Pin ⑩ of CN562 (MA-62 board)
Measuring Instrument	Vectorscope
Adjusting Element	Hue: RV103 Color Level: RV102
Specified Value	The chroma luminance points in parent and child pictures should be overlapped.

Adjusting method:

- 1) Turn RV102 and RV103 alternately and match the chroma luminance point (higher luminance) of parent picture with the chroma luminance point (lower luminance) of child picture.

7-6-7. Character Generator Clock Check (CG-10 Board)

Mode	E-E
Signal	No signal
Measurement Point	Pin ② of IC851
Measuring Instrument	Frequency counter
Specified Value	17.734476 MHz $\pm$ 100 Hz

Note: Attach 10 k Ω register to tip of the probe.

Checking method:

- 1) Confirm that the clock oscillation frequency is 17.734476 MHz $\pm$ 100 Hz.

7-6-8. AFC Adjustment (CG-10 Board)

Mode	E-E
Signal	No signal
Measurement Point	Pin ⑧ of IC685
Measuring Instrument	Oscilloscope
Adjusting Element	RV685
Specified Value	15625 $\pm$ 50 Hz

Connection:

- 1) Connect Pins ① and ⑨ of IC685 with 1 k Ω resistance.

Adjusting method:

- 1) Adjust RV685 so that the oscillation frequency is 15625 $\pm$ 50 Hz.

7-6-9. Character Position Adjustment (CG-10 Board)

Mode	E-E (EDIT MONITOR)
Signal	Color bar
Measurement Point	EURO AV IN/OUT connector
Measuring Instrument	Monitor TV
Adjusting Element	CV851
Specified Value	A=B

Note: Perform this adjustment after "Write Clock Adjustment".

Adjusting method:

- 1) Adjust CV851 so that the arrow mark is positioned at the center between the child pictures.

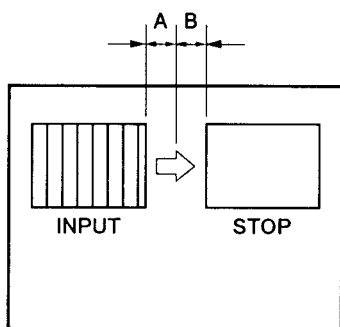


Fig. 7-23.

7-7. AUDIO SYSTEM ADJUSTMENTS

- Adjust the audio system in the LP mode, unless otherwise specified.
Use the alignment tape.
- Adjust both Lch and Rch.

[Connection]

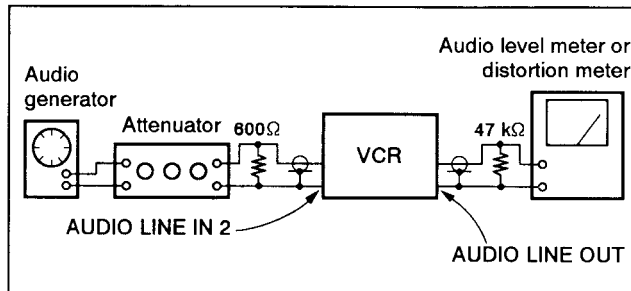


Fig. 7-24.

7-7-1. Hi-Fi Audio System Adjustment

- Set switches and knobs to the following positions to make adjustment unless otherwise specified.
INPUT SELECT switch.....LINE 2
REC LEVEL knob.....Set to -21 dBs.
(Pins ① and ② of CN572 on MA-62 board)
- When perform the adjustment after removing the PI-20 board, connect Pin (A13) of CN583 and Pin (B10) of CN584 on the MA-62 board with jumper wire.
- When the tuner block is obstructive for adjustment, remove it.

[Adjusting sequence]

1. VCO f_0 adjustment
2. Switching pulse portion adjustment
3. Playback RF level adjustment
4. Playback level adjustment
5. AFM deviation adjustment
6. Level meter adjustment

1. VCO fo adjustment (HF-9 board)

Mode	Recording
Signal	No signal
Measuring instrument	Frequency counter
1.3 MHz Adjustment	
Measurement point	Pin ③ of IC002
Adjusting element	RV008
Specified value	1.4 MHz $\pm$ 2 kHz
1.7 MHz Adjustment	
Measurement point	Pin ⑩ of IC002
Adjusting element	RV002
Specified value	1.8 MHz $\pm$ 2 kHz

Note: Connect the frequency counter through a probe of high input impedance (more than 10 M Ω) and low capacity (10 pF or less).

Checking method:

- 1) Connect the frequency counter to each measurement point.
- 2) Confirm that each frequency meet its specified value.

2. Switching pulse portion adjustment (HF-9 board)

Mode	PB
Signal	Alignment tape (HiFi 400 Hz)
Measurement Point	CH1: Pin ⑨ of CN571 (MA-62 board) CH2: Pin ⑮ of CN571 (MA-62 board)
Measuring Instrument	Oscilloscope
Adjusting Element	RV006
Specified Value	Fig. 7-25.

Adjusting method:

- 1) Adjust RV006 for no dropout.
(Turn and adjust RV006 to the mid-rotation of no dropout range.)

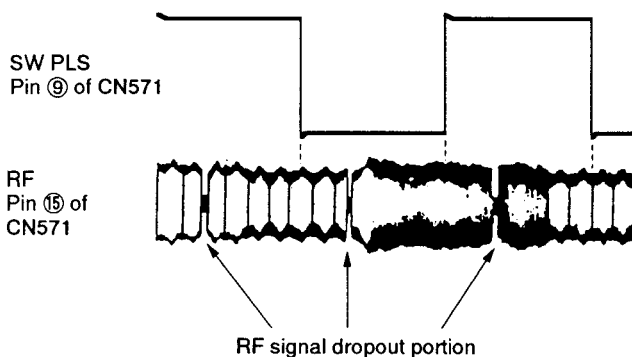


Fig. 7-25.

3. Playback RF level adjustment (HF-9 board)

Mode	PB
Signal	Alignment tape (MH-2): Stair-step section
Measurement Point	Pin ⑪ of IC002
Measuring Instrument	Oscilloscope (DC range)
Adjusting Element	RV005
Specified Value	50 mVp-p

Connection:

- 1) Remove CN532 on MA-62 board, and input sine waveform of 1.4 MHz $\pm$ 2 kHz, 70 mVp-p to Pins ③ and ④ of CN571 from the signal generator.

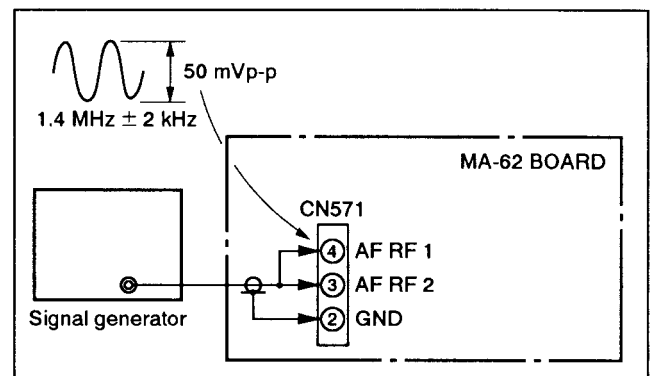


Fig. 7-26.

- 2) Connect the headset to the headphone terminal, and monitor the playback sound.

Adjusting method:

- 1) Turn RV005 fully counterclockwise ($\odot$) seeing from the soldering side of MA-62 board.
- 2) Confirm that the level at Pin ⑪ of IC002 is "L" (0V) and there is no playback sound.
- 3) Turn RV005 slowly clockwise ($\odot$) until the level at Pin ⑪ of IC002 becomes "H" (3.3V or more). Then, confirm that the audio signal of 6 kHz is played back.

4. Playback level adjustment (HF-9 board)

Mode	PB
Signal	Alignment tape (HiFi 400 Hz)
Measurement Point	Lch: AUDIO LINE OUT L Rch: AUDIO LINE OUT R
Measuring Instrument	Audio level meter
Adjusting Element	Lch: RV007 Rch: RV004
Specified Value	-7.5 $\pm$ 0.1 dBs

Adjusting method:

- 1) Adjust a playback level to -7.5 $\pm$ 0.1 dBs for both L and R channels with RV007 and RV004, respectively.

5. AFM deviation adjustment (HF-9 board)

Mode	Recording and Playback
Signal	400 Hz, -7.5 dB: AUDIO LINE IN 2 L, R
Measurement Point	Lch: AUDIO LINE OUT L Rch: AUDIO LINE OUT R
Measuring Instrument	Audio level meter
Adjusting Element	Lch: RV009 Rch: RV003
Specified Value	-7.5 ± 0.5 dBs

Adjusting method:

- 1) Confirm the 400 Hz signal level at Pins ② (Lch) and ① (Rch) of CN572 on the MA-62 board is -21 ± 0.1 dBs.
- 2) Record the signals.
- 3) Play back the recorded portion.
- 4) Confirm that the AUDIO LINE OUT level meets the specification.
If not, turn RV009 (Lch) or RV003 (Rch), and repeat steps 2) to 4).

6. Level meter adjustment (MF-94 board)

Mode	E-E
Signal	1 KHz, -7.5 dBs: AUDIO LINE IN 2 L, R
Measurement Point	REC level meter
Measuring Instrument	
Adjusting Element	Lch: RV201 Rch: RV202
Specified Value	0 dB

Adjusting method:

- 1) Adjust the REC level controls (L/R) so that the signal level at AUDIO LINE OUT is -6.5 ± 0.1 dBs.
- 2) Adjust RV201 (Lch) and RV202 (Rch) so that the REC level meters (L/R) indicate 0 dB, respectively.

7-7-2. Normal Audio System Adjustment

- Make adjustment in the SP mode, unless otherwise specified.
Use a normal VHS cassette for an adjustment tape.
- Make adjustment with the switches set to the following positions.
INPUT SELECT.....LINE 2
- Set the AUDIO MONITOR mode to NORMAL on the menu screen.

[Adjusting sequence]

1. ACE head adjustment.....See Mechanism Block Adjustment
2. E-E output level check
3. Recording bias adjustment
4. Overall level characteristic and distortion factor check
5. Overall S/N check

1. ACE head adjustment

See "Mechanism Block Adjustment".

2. E-E output level check

Mode	E-E
Signal	L, R : 400 Hz, -7.5 dBs
Measurement Point	AUDIO LINE OUT L or R
Adjusting Element	Audio level meter
Specified Value	-7.5 ± 2 dBs

Confirming method:

- 1) Simultaneously input a signal of 400 Hz, -7.5 dBs to both L and R channels of Audio Line Input.
- 2) Confirm that the audio output level is -7.5 ± 2 dBs.

3. Recording bias adjustment (MA-62 board)

Mode	REC and PB
Signal	400 Hz, -30 dBs 7 kHz, -30 dBs
Measurement Point	AUDIO LINE OUT L or R
Measuring Instrument	Audio level meter
Adjusting Element	RV251
Specified Value	0 ± 1 dB

Adjusting method:

- 1) Supply a signal of 400 Hz, -30 dBs to Audio Line Input.
- 2) Connect the audio level meter to the Audio Line Output.
- 3) Adjust the attenuator so that the audio level meter will indicate -30 dBs.
- 4) Make recording in the SP mode.
- 5) Set an audio line input signal to 7 kHz and make recording.
- 6) Playback a recorded portion, and measure output levels at 400 Hz and 7 kHz.
- 7) Confirm that the 7 kHz playback output levels within a range of the 400 Hz playback output level 0 ± 1 dB. When beyond this range, adjust RV251 and repeat the steps 1) through 7) above.

4. Overall level characteristic and distortion factor check

Mode	REC and PB
Signal	400 Hz, -7.5 dBs
Measurement Point	AUDIO LINE OUT L or R
Measuring Instrument	Audio level meter and distortion factor gauge
Specified Value	Playback level: -7.5 ± 2 dBs Distortion factor: 4% or less

Confirming method:

- 1) Supply an audio signal of 400 Hz, -7.5dBs simultaneously to both L and R channels of Audio Line Input.
- 2) Make recording.
- 3) Playback a recorded portion.
- 4) Confirm that a playback level is -7.5 ± 2 dBs.
- 5) Confirm that a distortion factor is within 4%.

5. Overall S/N check

Mode	REC and PB
Signal	400 Hz, -7.5 dBs, and no signal
Measurement Point	AUDIO LINE OUT L
Measuring Instrument	Audio level meter
Specified Value	38 dB or more

Confirming method:

- 1) Supply a signal of 400 Hz simultaneously to both L and R channels of Audio Line Input.
Adjust the attenuator so that the L channel audio line output level will be -7.5 dBs.
- 2) Make recording.
- 3) With the REC mode held, make the no signal state. (Short an input for both L and R)
- 4) Playback a recorded portion, and confirm that there is a level difference of 38 dB or more between 400 Hz portion and no signal portion (immediately after a 400 Hz signal).

7-8. TUNER SYSTEM ADJUSTMENTS

7-8-1. RF AGC Adjustment (IF001 Unit/TU-120 Board)

Signal	Broadcast TV signal
Adjusting Element	VR of IF001 unit (Fig. 7-27.)

Adjusting method:

- 1) Adjust the monitor TV to a maximum contrast.
- 2) Turn the VR to make snow noise visible.
- 3) Turn the VR in an opposite direction and set it to the point where the snow noise disappears.
- 4) Receive each channel and confirm that there are no beat picture corruption snow noise due to cross modulation.

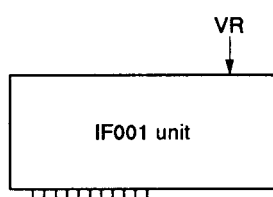


Fig. 7-27.

7-8-2. Receive Separation Adjustment (TU-120 Board) (SLV-777/AS/NC/VP)

Signal	Stereo Lch: 400 Hz, 100% modulation Rch: No modulation
Connection Point	AUDIO LINE OUT R
Measuring Instrument	Oscilloscope
Adjusting Element	RV001

Setting of switches:

- RV103 (MF-101 board).....Center click
- RV104 (MF-104 board).....Center click

Adjusting method:

- 1) Set the sound multiplex signal generator in the Stereo mode, and set only Lch to 400 Hz, 100% modulation.
- 2) Connect the oscilloscope to the Rch of Audio Line Output.
- 3) Adjust rv001 to minimize Rch output.
When this is done, do not fully turn RV001.
(The "STEREO" indication must be illuminated).

7-9. NAICAM SYSTEM ADJUSTMENTS (SLV-777UB/NC)

7-9-1. Eye Pattern Adjustment (NA-7 Board)

Mode	NAICAM ch received
Signal	Color bar
Measurement Point	CH1: Pin ①⑨ of IC001 CH2: Pin ②⑩ of IC001
Measuring Instrument	Oscilloscope (X-Y mode)
Adjusting Element	CV01

Adjusting method:

- 1) Confirm that waveform as OK in Fig observed clearly and with out tilt.

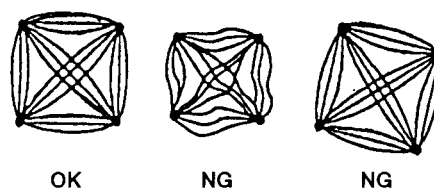


Fig. 7-28.

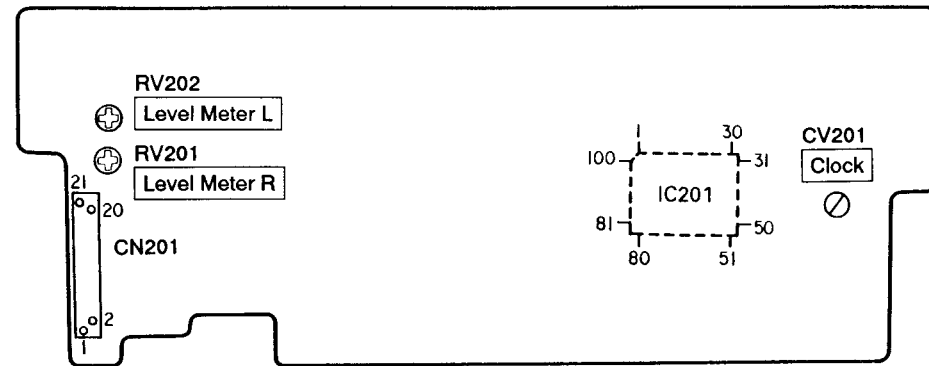
7-9-2. VCO Adjustment (NA-7 Board)

Mode	NICAM ch received
Signal	no-signal
Measurement Point	Pin ②⑥ of IC001
Measuring Instrument	Frequency counter
Adjusting Element	CV02
Specified Value	5.824 MHz $\pm$ 30 Hz

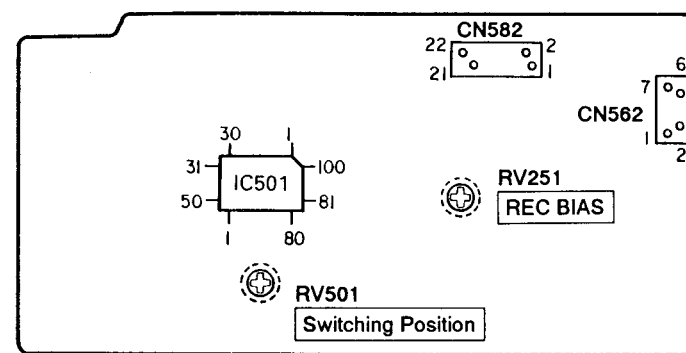
Note: Shorted Pins ⑫ and ⑰ of IC001.

7-10. ADJUSTMENT PARTS ARRANGEMENT DIAGRAM

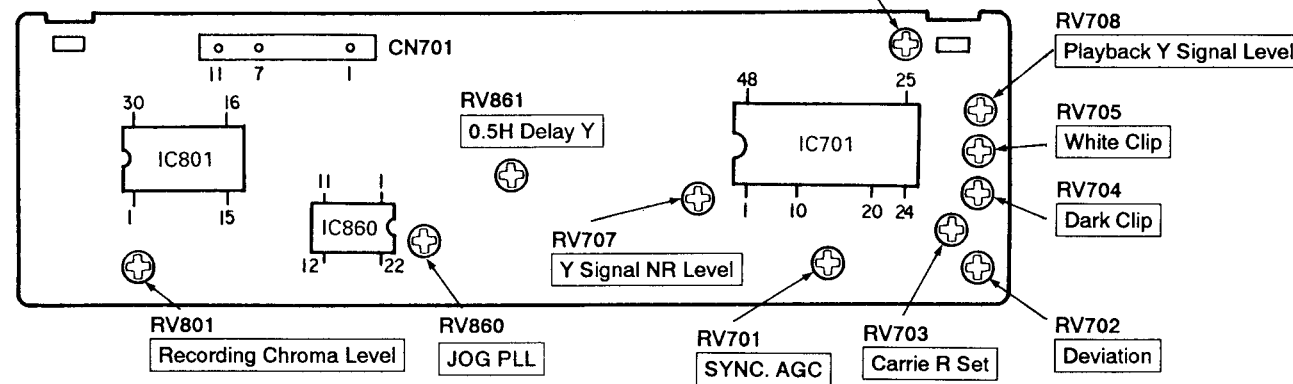
MF-94 BOARD (COMPONENT SIDE)



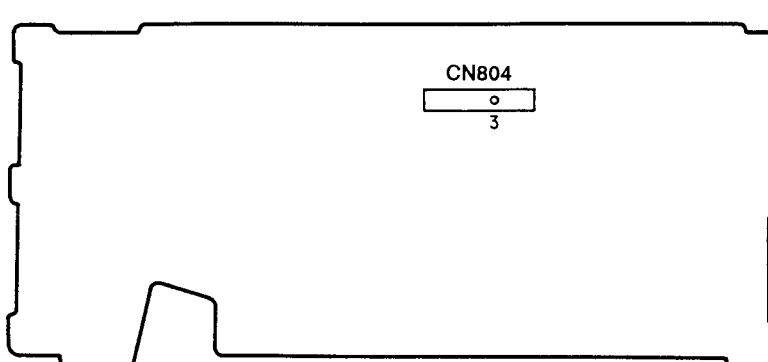
MA-62 BOARD (CONDUCTOR SIDE)



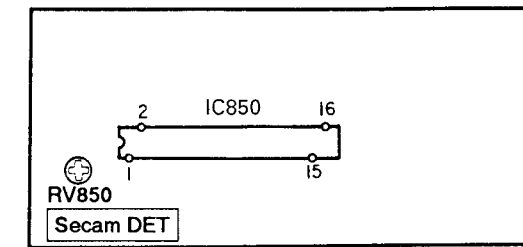
YC-65 BOARD (COMPONENT SIDE)



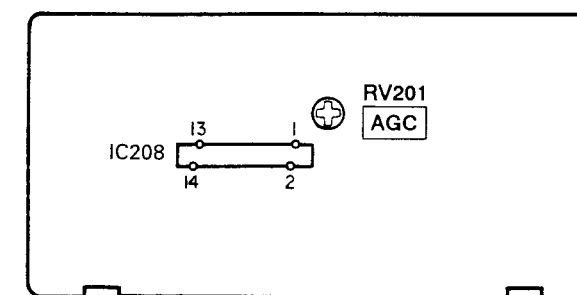
RP-63 BOARD (COMPONENT SIDE)



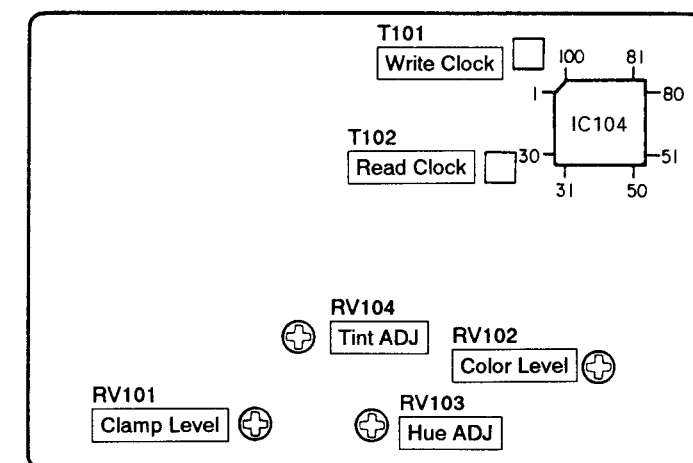
SD-4 BOARD (COMPONENT SIDE)



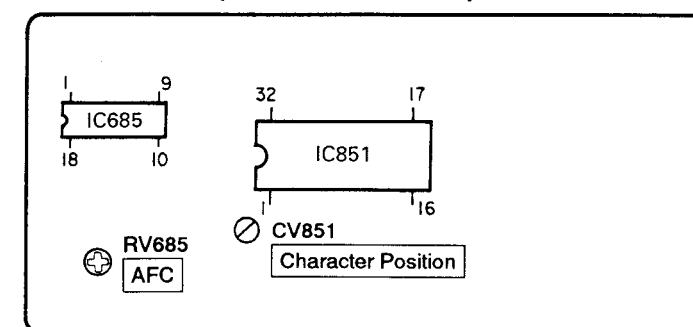
PI-20 BOARD (COMPONENT SIDE)



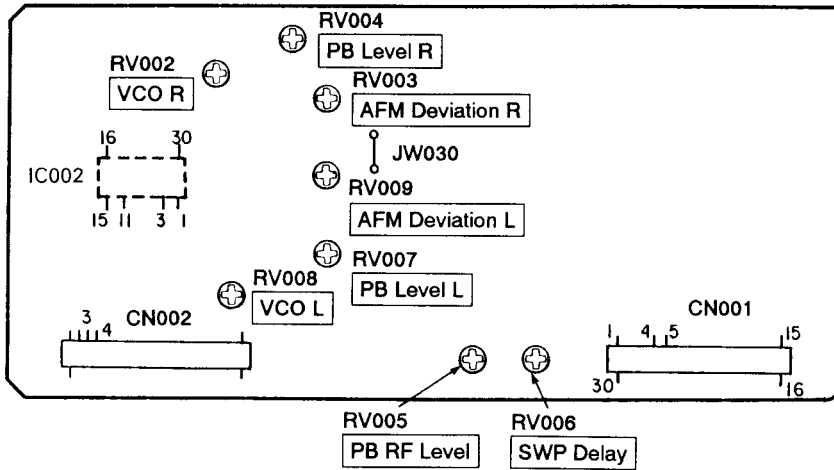
DG-11 BOARD (COMPONENT SIDE)



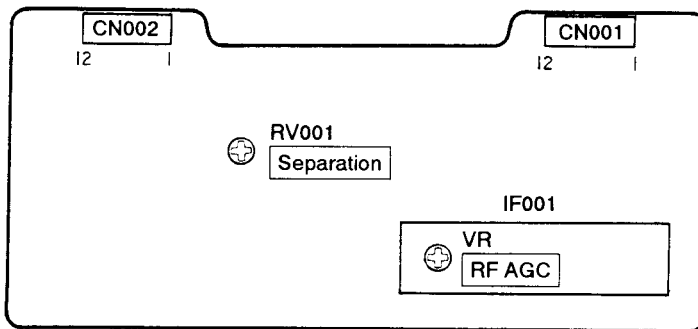
CG-10 BOARD (COMPONENT SIDE)



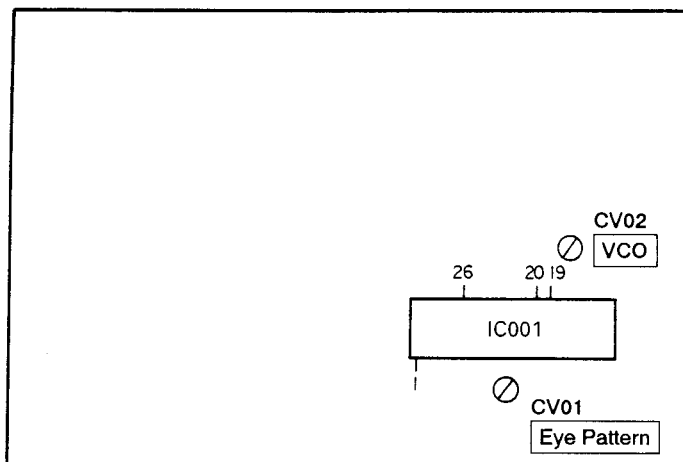
HF-9 BOARD (COMPONENT SIDE)



TU-120 BOARD (COMPONENT SIDE)



MA-7 BOARD (COMPONENT SIDE)



SLV-777/AS/NC/UB/VP

RMT-V5B

SONY[®] SERVICE MANUAL

AEP, E Model
SLV-777

Australian Model
SLV-777AS

AEP, New Zealand Model
SLV-777NC

UK Model
SLV-777UB

ME, Germany Model
SLV-777VP

SUPPLEMENT-1

File this supplement with the service manual.

1. We send you in addition the schematic diagram, printed wiring diagram and electrical parts list for the power supply unit.
2. Please correct parts code of IC501 on page 192 as follows:

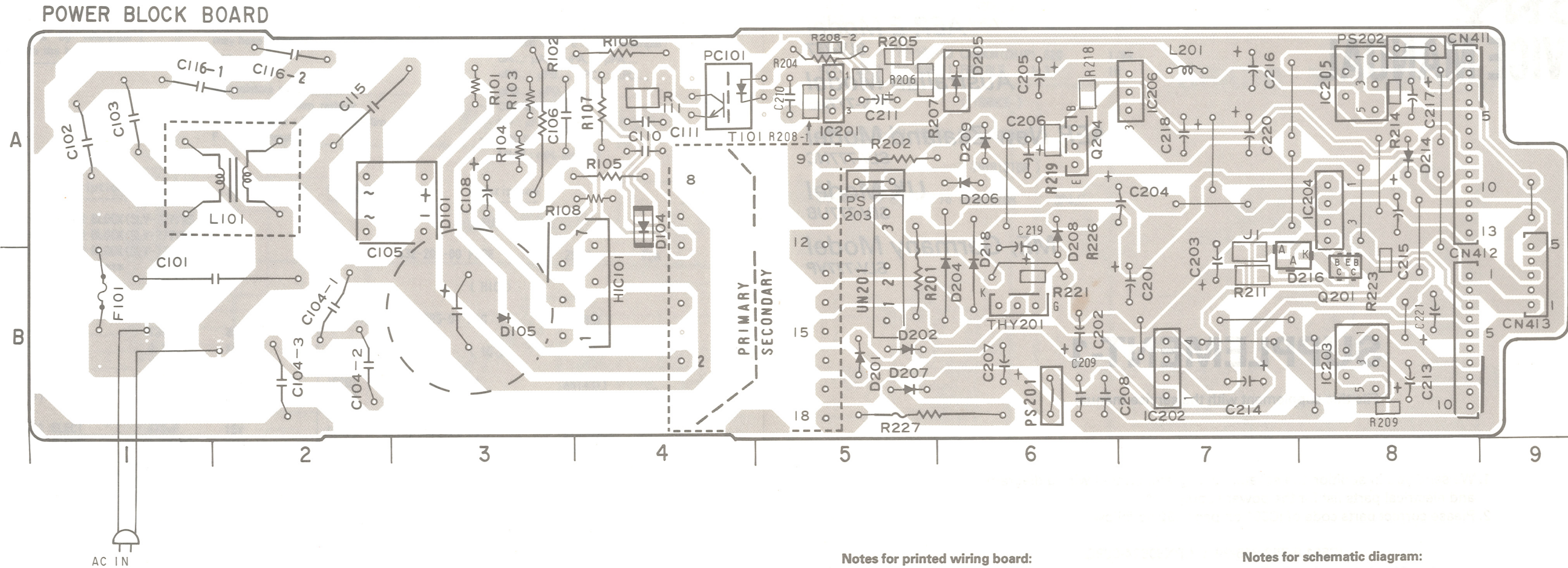
IC501 8-752-815-90 IC CPX80624-009Q



8-752-814-58 IC CPX80624-029Q

SECTION 1
DIAGRAMS

1-1. PRINTED WIRING BOARD



• SEMICONDUCTOR LOCATION

Pef. No.	Location	Pef. No.	Location	Pef. No.	Location
CN411	A - 8	D205	A - 6	IC201	A - 5
CN412	B - 8	D206	A - 6	IC202	B - 7
CN413	B - 9	D207	B - 5	IC203	B - 8
		D208	A - 6	IC204	A - 8
		D209	A - 6		
D101	A - 3			IC205	A - 8
D104	A - 4			IC206	A - 7
D105	B - 3	D214	A - 8		
D201	A - 5	D216	B - 7	Q201	B - 8
		D218	B - 6	Q204	A - 6
D202	B - 5				
D204	B - 6	HIC101	B - 4		

< DIODE >

D101	△	8-719-510-06	DIODE	S1WB60	
D104	△	9-901-003-01	DIODE	D1F60	
D105	△	9-901-003-01	DIODE	D1F60	
D201		8-719-510-26	DIODE	D1NL20	
D204		8-719-500-15	DIODE	S3S4M	
D205	△	8-719-500-70	DIODE	D5S4M	
D206		8-719-980-78	DIODE	ERA83-006	
D207		8-719-980-78	DIODE	ERA83-006	
D208		8-719-110-49	DIODE	RD18ESB2	
D209	△	8-719-510-26	DIODE	D1NL20	
D214		8-719-110-30	DIODE	RD12ESB1	
D216		8-719-914-43	DIODE	DAN202K	
D218		9-998-289-01	DIODE	RD43FB2	
D222		8-719-510-26	DIODE	D1NL20	

< IC >

IC201	8-759-420-19	IC	AN1431T
IC202	9-998-291-01	IC	PQ12RF11
IC203	1-808-796-11	IC	SI3120CS
IC205	8-749-920-43	IC	SI3050CA
IC206	8-759-604-94	IC	M5F79M06L

< TRANSISTOR >

Q201	8-729-920-28	TRANSISTOR	FMG9
Q204	8-929-140-98	TRANSISTOR	2SD77-34

Notes for printed wiring board:

- : indicated a lead wire mounted on the component side.
- : indicated a lead wire mounted on the conductor side.
- : Pattern from the side which enables seeing.

Notes for schematic diagram:

- Caution when replacing chip parts.
New parts must be attached after removal of chip.
Be careful not to heat the minuts side of tantalum capacitor, because it is damaged by the heat.
- All resistors are in ohms, 1/4W (Chip resistors: 1/10W) unless otherwise noted.
kΩ: 1000Ω
- All capacitors are in μF unless otherwise noted. PF: μμF
50V or less are not indicated except for electrolytics and tantalums.
- ⎓ : fusible resistor.
- : adjustment for repair.
- : B + Line.
- : B - Line.
- ↔ : IN/OUT direction of (+, -) B LINE.
- Voltages are DC between measurement points and ground unless otherwise noted.
- Readings are taken with a color-bar signal input.
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltage variations may be noted due to normal production tolerances.

When indicating parts by reference number, please include the board name.

Note:
The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----

SECTION 2
ELECTRICAL PARTS LIST

POWER BLOCK

NOTE:

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

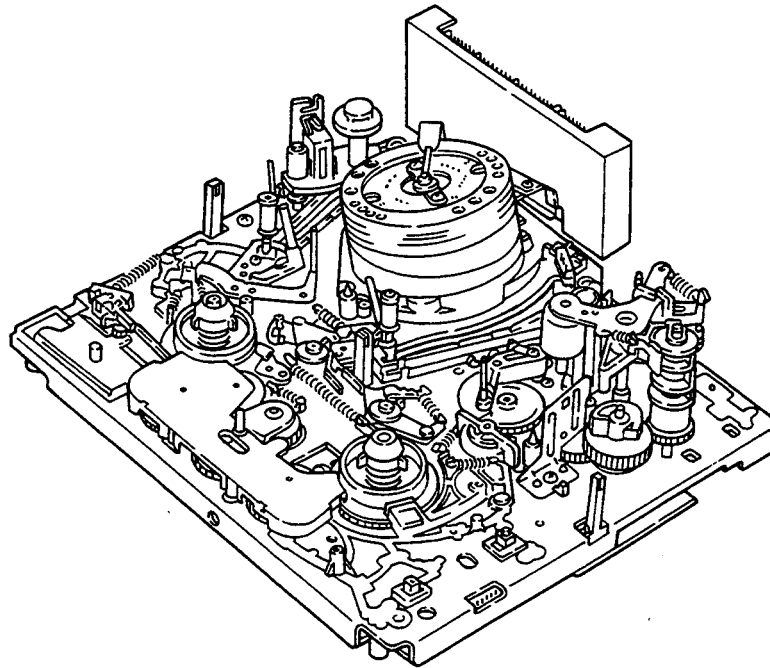
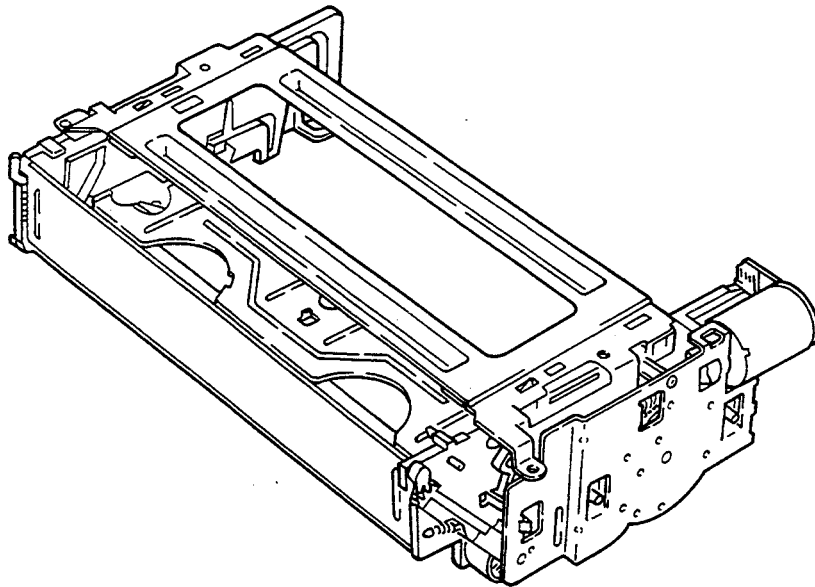
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal Oxide-film resistor
F : nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...
- CAPACITORS
MF: μ F, PF: μ μ F
- COILS
MMH: mH, uH: μ H

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
	1-413-601-11	POWER BLOCK(SLV-777/AS/NC)				< FUSE >	
	1-413-608-11	POWER BLOCK(SLV-777VP)					
	1-413-609-11	POWER BLOCK(SLV-777UB)		F101	1-532-203-00	FUSE 250V T2A	
	*****					< HIC >	
		< CAPACITOR >		HIC101	Δ 9-900-265-01	HIC MA2831	
						< IC >	
C105	Δ 9-901-004-01	ELECT 135uF 400V		IC201	8-759-420-19	IC AN1431T	
C115	Δ 1-136-548-11	FILM 0.1uF AC250V		IC202	9-998-291-01	IC PQ12RF11	
C201	1-124-514-11	ELECT 100uF 50V		IC203	1-808-796-11	IC S13120CS	
C204	1-126-234-11	ELECT 2200uF 16V		IC205	8-749-920-43	IC S13050CA	
C205	1-124-781-11	ELECT 3300uF 10V		IC206	8-759-604-94	IC M5F79M06L	
						< COIL >	
C206	1-126-103-11	ELECT 470uF 16V		L101	Δ 9-998-280-01	CHOCK COIL ELF-18D290C	
C211	1-124-042-11	ELECT 0.47uF 50V		L201	9-901-002-01	CHOCK COIL 40uH 1A	
C213	1-126-541-11	ELECT 330uF 16V				< COUPLER >	
C215	1-124-041-11	ELECT 220uF 16V		PC101	Δ 8-719-939-00	COUPLER, PHOTO PC111S	
C216	1-126-103-11	ELECT 470uF 10V				< PROTECTOR >	
C217	1-126-335-11	ELECT 220uF 10V		PS201	Δ 1-532-679-00	PROTECTOR, IC ICP-F15 0.5A	
C219	1-124-038-11	ELECT 1uF 50V		PS202	Δ 1-532-637-00	PROTECTOR, IC ICP-F25 1A	
C220	1-124-514-11	ELECT 100uF 50V		PS203	Δ 1-532-675-00	PROTECTOR, IC ICP-F38 1.5A	
						< TRANSISTOR >	
		< CONNECTOR >		Q201	8-729-920-28	TRANSISTOR FMG9	
CN411	1-506-478-11	CONNECTOR 13P		Q204	8-929-140-98	TRANSISTOR 2SD77-34	
CN412	1-506-475-11	CONNECTOR 10P				< RESISTOR >	
CN413	1-506-470-11	CONNECTOR 5P		R102	Δ 1-215-929-11	METAL 100 3W	
		< DIODE >		R105	Δ 1-247-742-11	CARBON 180 1/2W	
D101	Δ 8-719-510-06	DIODE S1WB60		R105	Δ 1-247-746-11	CARBON 390 1/2W	
D104	Δ 9-901-003-01	DIODE D1F60		R106	Δ 1-216-447-00	METAL 27 2W	
D105	Δ 9-901-003-01	DIODE D1F60		R107	Δ 1-215-859-00	METAL 22 1W	
D201	8-719-510-26	DIODE D1NL20		R108	1-249-469-11	CARBON 100K 1/4W	
D204	8-719-500-15	DIODE S3S4M		R201	Δ 1-212-988-00	FUSIBLE 180 1/2W	
D205	Δ 8-719-500-70	DIODE D5S4M		R202	Δ 1-212-986-00	FUSIBLE 150 1/2W	
D206	8-719-980-78	DIODE ERA83-006					
D207	8-719-980-78	DIODE ERA83-006					
D208	8-719-110-49	DIODE RD18ESB2					
D209	Δ 8-719-510-26	DIODE D1NL20					
D214	8-719-110-30	DIODE RD12ESB1					
D216	8-719-914-43	DIODE DAN202K					
D218	9-998-289-01	DIODE RD43FB2					
D222	8-719-510-26	DIODE D1NL20					

Ref. No.	Part No.	Description	Remarks
R204	Δ 1-247-735-11	CARBON 47	1/2W
R208	1-216-202-00	CARBON(CHIP) 1.5K	1/8W
R211	1-216-224-00	CARBON(CHIP) 12K	1/4W
R218	1-216-196-00	CARBON(CHIP) 820	1/8W
R219	1-216-196-00	CARBON(CHIP) 820	1/8W
R227	Δ 1-213-039-11	FUSIBLE 1.3	1W
		< TRANCE >	
T101	Δ 9-901-001-01	TRANSFORMER	
		< THYRISTOR >	
THY201	8-719-123-76	THYRISTOR 3P4J	

VHS MECHANICAL ADJUSTMENT MANUAL II

- Please use in conjunction with the SERVICE MANUAL.
- This VHS MECHANICAL ADJUSTMENT MANUAL II can be used for NTSC system and PAL system.



VHS VIDEO RECORDER
SONY®

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
1. PREPARATIONS FOR CHECKS, ADJUSTMENTS AND REPLACEMENT OF THE DECK MECHANISM					
1-1.	Loading and unloading video cassettes with the power off	3	3-13.	S-guide and T-guide roller ass'y's	14
1-1-1.	Manual loading and unloading	3	3-14.	Reel lock release and REW gear	14
1-1-2.	Loading and unloading using a separate power source	3	3-15.	Tension regulator arm ass'y, tension regulator band ass'y	15
1-2.	Threading and unthreading with the power off	3	3-16.	S take-up ass'y	15
1-2-1.	Manual threading and unthreading	3	3-17.	S-reel ass'y	16
1-2-2.	Threading and unthreading using a separate power source	3	3-18.	T-reel ass'y	16
1-3.	To complete threading with the FL cassette controller removed	4	3-19.	Pendulum arm ass'y	16
2. PERIODICAL INSPECTION AND REPLACEMENT			3-20.	Relay gear	17
2-1.	Cleaning the rotary head disc ass'y	5	3-21.	Adjuster arm ass'y	17
2-2.	Cleaning the tape transport system	5	3-22.	CAP brake ass'y	17
2-3.	Cleaning the drive system	5	3-23.	Capstan motor	18
2-4.	Periodic Maintenance	6	3-24.	Rotary switch	18
2-5.	Service Tools and Jigs	7	3-25.	RKB cam gear	19
3. REPLACEMENT OF MAJOR COMPONENT PARTS OF THE DECK MECHANISM			3-26.	Sub-chassis ass'y	19
3-1.	FL mechanism	8	3-27.	Pendulum slide plate, pendulum arm	20
3-1-1.	FL door	8	3-28.	The limiter arm and limiter slide plate	20
3-1-2.	Erase protection lever	8	3-29.	Cam motor	20
3-1-3.	Gear cover ass'y	8	3-30.	Cam gear	20
3-1-4.	Loading motor, worm gear (FL), worm wheel (FL), worm bearing	8	3-31.	Tension regulator arm, S take-up arm	21
3-1-5.	Door OPEN/CLOSE arm	9	3-32.	Mode slide plate, RVS relay gear	21
3-2.	TS ass'y and guide roller ass'y No.2	9	3-33.	Brake arm, brake slide plate	21
3-3.	ACE ass'y	10	3-34.	Right shuttle, right loading gear ass'y	22
3-4.	Drum ass'y	10	3-35.	Left shuttle ass'y, left loading gear ass'y	22
3-5.	Drum base ass'y	10	3-36.	C-roller arm ass'y, C-roller release lever	23
3-6.	Pinch roller ass'y and elevator cam	11			
3-7.	Cam gear, press and transmission gear	11	4. ADJUSTMENT		
3-8.	RVS arm ass'y and RVS cam gear	12	4-1.	Tape path adjustment	
3-9.	Guide No.7	12	4-1-1.	Tension regulator position/tension adjustment	24
3-10.	S-brake ass'y, T-brake ass'y	13	4-1-2.	Height adjustment of the guide roller No.2	25
3-11.	T-soft brake ass'y, REV brake arm	13	4-1-3.	Height adjustment of guide roller No. 7 and the RVS arm	25
3-12.	S-soft brake arm ass'y	13	4-1-4.	Height adjustment of guide rollers No.3 and No.6	26
			4-1-5.	ACE head ass'y adjustment (rough adjustment)	26
			4-1-6.	ACE head assembly adjustment (precision adjustment)	27
			4-1-7.	X-value adjustment	27
			4-1-8.	Adjustments after replacing the drum (video head)	29
			4-1-9.	Checking the tension and torque	31

1. PREPARATIONS FOR CHECKS, ADJUSTMENTS AND REPLACEMENT OF THE DECK MECHANISM

Note : Refer to "Replacement Method" in the Service Guide for instructions on replacing the cabinet and PC boards. DO not perform cassette loading or threading with the VCR positioned upside-down.

1-1. LOADING AND UNLOADING VIDEO CASSETTES WITH THE POWER OFF. (Fig. 1-1.)

1-1-1. Manual loading and unloading

- 1) Rotate the loading motor in the direction of arrow **A** until loading is completed.
(When unloading, rotate the loading motor in the direction of arrow **B**.)

1-1-2. Loading and unloading using a separate power source.

- 1) Cassette loading is performed by applying approx. 10V (300 mA) to the power terminal of the loading motor using a stabilized DC power source.
(When unloading, apply the same voltage to the opposite polarity of the power terminal.)

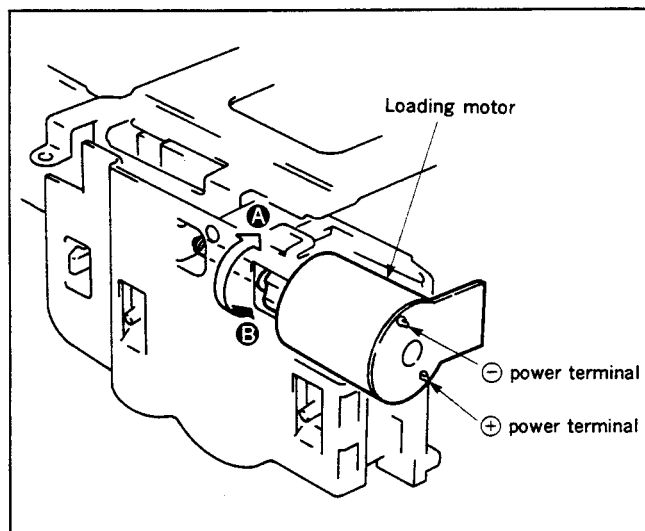


Fig. 1-1.

1-2. THREADING AND UNTHREADING WITH THE POWER OFF. (Fig. 1-2)

1-2-1. Manual threading and unthreading

- 1) Rotate the cam motor **1** in the direction of arrow **A** until threading is completed.
(When unthreading, rotate the cam motor **1** in the direction of arrow **B**.)

1-2-2. Threading and unthreading using a separate power source.

- 1) Threading is performed by applying approx. 10V (500 mA) to the power terminal for the cam motor **1** using a DC stabilized power source.
(When unthreading, apply the same voltage to the opposite polarity of the power terminal.)

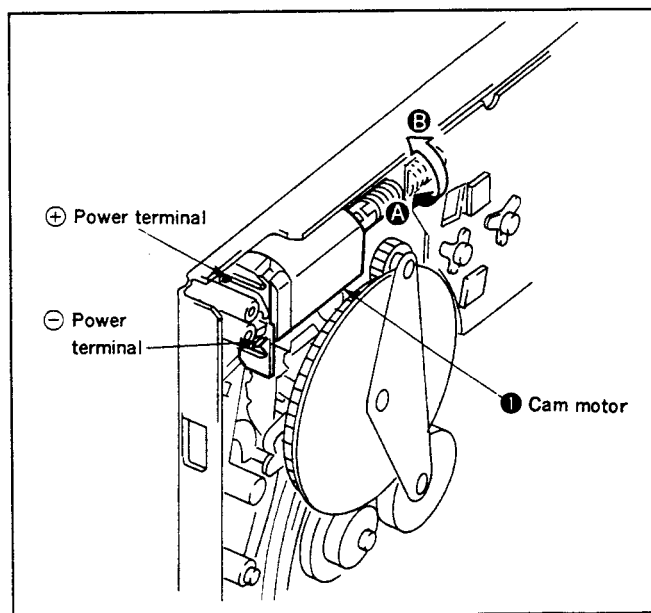


Fig. 1-2.

1-3. TO COMPLETE THREADING WITH THE FL CASSETTE CONTROLLER REMOVED. (Fig. 1-3)

- 1) Unplug the AC power cord from the power outlet.
- 2) Shield the supply, take-up sensors and the LED with black-masking tape.
- 3) Hold the cassette down switch depressed by taping it, etc.
- 4) Plug the AC power cord into a power outlet.
(At this time, the power should turn on and the tape rewinds for approx. 10 seconds, and the power turns off.)
- 5) Turn the power switch ON so that the mechanism is ready for loading.

Note : In this condition, the VTR is ready to operate in the different operating modes, including the record mode.
At this time, rewind the tape for at least 15 seconds, then perform fast forward (FF).

Note : Following the above, be sure to reset the mechanism to the previous state as outlined below.

- 1) Remove the black-masking tape shielding the supply and take-up sensors, the LED and the tape holding cassette down switch.
- 2) Unplug the AC power cord from the power outlet to reset the system control microprocessor.

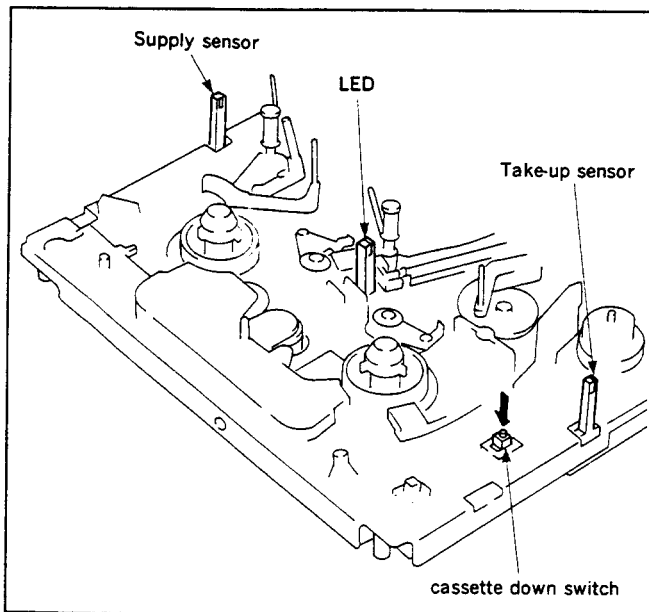


Fig. 1-3.

2. PERIODICAL INSPECTION AND REPLACEMENT

We recommend performing the following periodical inspections and maintenance in order to ensure that the unit operates in top condition and offers full performance, as well as realizes a long life of the mechanism and tapes.

* Be sure to perform the following maintenance procedures after the unit is repaired (regardless how long the unit has been used.)

2-1. CLEANING THE ROTARY HEAD DISC ASS'Y

- 1) Press Attach a deer skin cloth (Jig. Ref. No. J-7) soaked in cleaning solution (Jig. Ref. No. J-5) lightly to the rotary drum ass'y, then turn the rotary head disc slowly by hand to clean the surface of the rotary drum ass'y. (At this time, do not turn on the power motor to rotate the rotary head disc for cleaning.)
- 2) Also, do not wipe the drum ass'y by moving the deer skin cloth vertically across the head as this could damage of the tip of the head.

2-2. CLEANING THE TAPE TRANSPORT SYSTEM

- 1) Clean the tape transport surfaces (tape guide, a drum ass'y surfaces, capstan, pinch roller, etc.) with a deer skin cloth soaked in an approved in the recommended cleaning solution.

2-3. CLEANING THE DRIVE SYSTEM

- 1) Wipe the drive mechanism with an ordinary cloth soaked in an approved cleaning solution.

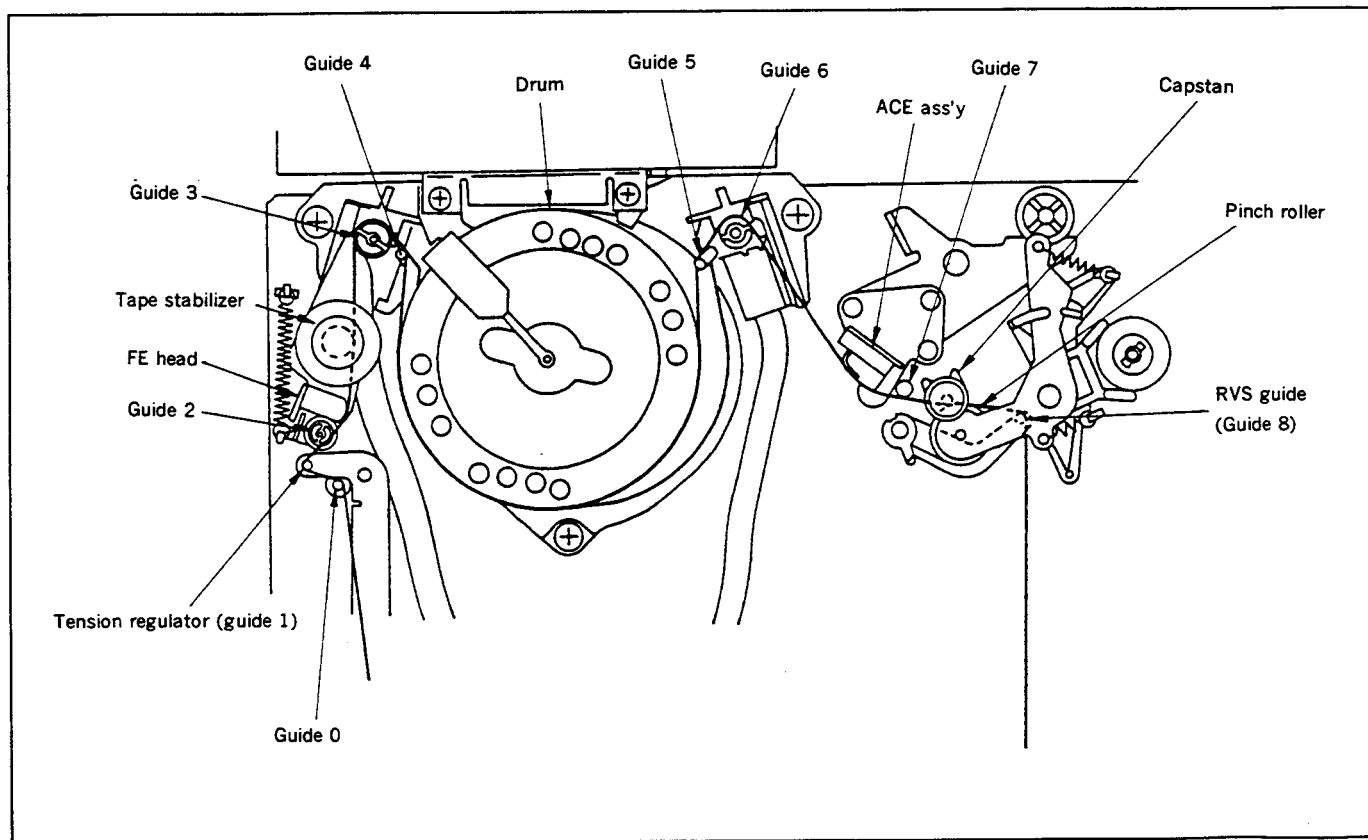


Fig. 2-1.

2-4. PERIODIC MAINTENANCE

Location of Maintenance and Check		User Hours	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000	Remarks
		Replacement Part No.											
Performance Check	Clean tape running surfaces	—	○	○	○	○	○	○	○	○	○	○	Always perform after repair.
	Clean, degauss ACE ass'y	—	○	○	○	○	○	○	○	○	○	○	
	Clean, degauss video disc ass'y	—	○	○	○	○	○	○	○	○	○	○	Head life is greatly affected by environment and method of use.
Driving System	Reel belt	3-736-013-01	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Always perform after repair.
Tape Running System	Abnormal noise	—	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Adjust or replace source of abnormal noise.
	Back tension measurement	—	—	☆	—	☆	—	☆	—	☆	—	☆	Check according to 4-1-1. Spec : 24 — 34g/cm (Measured with torque cassette)
	Brake system check	—	—	☆	—	☆	—	☆	—	☆	—	☆	
	REC/PB function check	—	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Always perform after repair.
	Forward torque measurement		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Spec : 80 — 140 g·cm

○ Cleaning ☆ Check

Note : Refer to the above items for part replacement when performing an overhaul.

2-5. SERVICE TOOLS AND JIGS

Ref. No.	Description	Part No.	Printing on jig	Remarks
J-1	Master plane	H-7099-279-H		
J-2	Reel disc height jig	H-7099-038-H		
J-3	Torque gauge adapter	H-7099-035-H		
J-4	Torque gauge	H-7099-039-H		
J-5	0.93mm Allen wrench	H-7099-202-H		
J-6	NTSC torque cassette VHT-063S PAL torque cassette	J-6082-011-A J-6082-066-A		For rewind torque and back tension
	NTSC torque cassette VHT-404S PAL torque cassette	J-6082-012-A J-6082-067-A		For cue/review
J-7	NTSC alignment tape JVC-MH-1 PAL alignment tape JVC-MH-2	H-7099-046-H H-7099-052-H		
	NTSC Hi-Fi alignment tape PAL Hi-Fi alignment tape	H-7099-153-H H-7099-175-H		
J-8	Cleaning fluid	Y-2031-001-0	————	
J-9	Chamois cloth	2-034-697-00	————	Cleaning
J-10	Head degausser	Widely available	————	Video, audio head degaussing
J-11	Small adjustment mirror (with handle)	J-6080-029-A	SL-5052	For tape path and tape running adjustment and check
	Small adjustment mirror (mirror only)	J-6080-030-1		

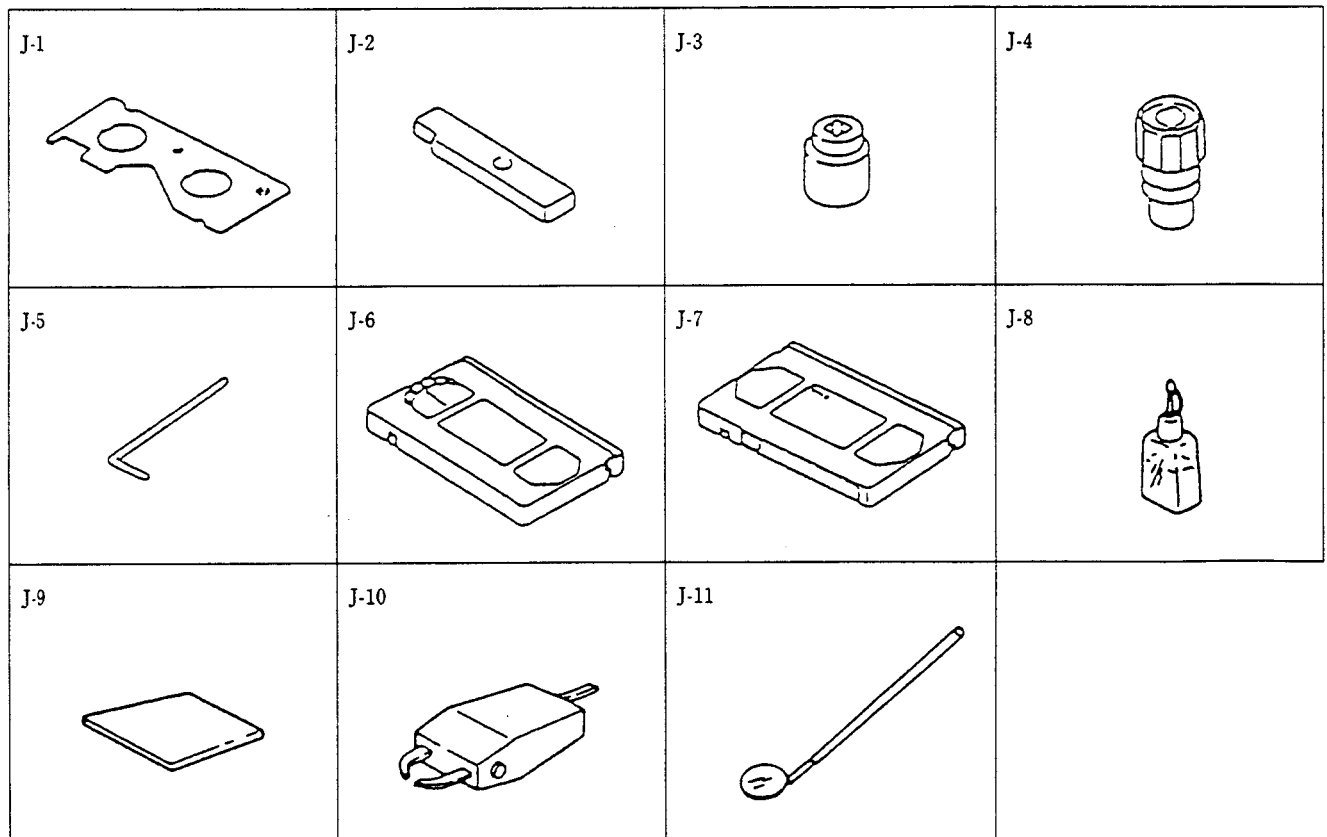


Fig. 2-2. Service tools and jigs

3. REPLACEMENT OF MAJOR COMPONENT PARTS OF THE DECK MECHANISM

- Note:**
- Refer to "Replacement Method" in the Service Guide for replacing the cabinet and PC boards.
 - When mounting parts, reverse the replacement procedure while referring to "Precautions on Mounting Parts".

3-1. FL MECHANISM

3-1-1. FL door (Fig. 3-1.)

- 1) Press the claw ① in the direction of arrow A, then remove the FL door ② in the direction of arrow B.

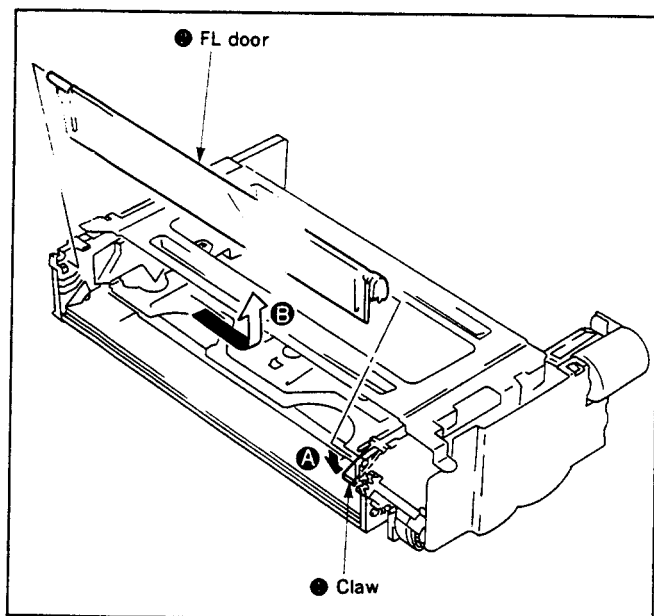


Fig. 3-1.

3-1-2. Erasure protection lever (Fig. 3-2)

- 1) Remove the spring ①.
- 2) Disengage the claw ②, then slide the erasure protection lever ③ in the direction of arrow A.
- 3) Disengage the erasure protection lever ③ in the direction of arrow B.

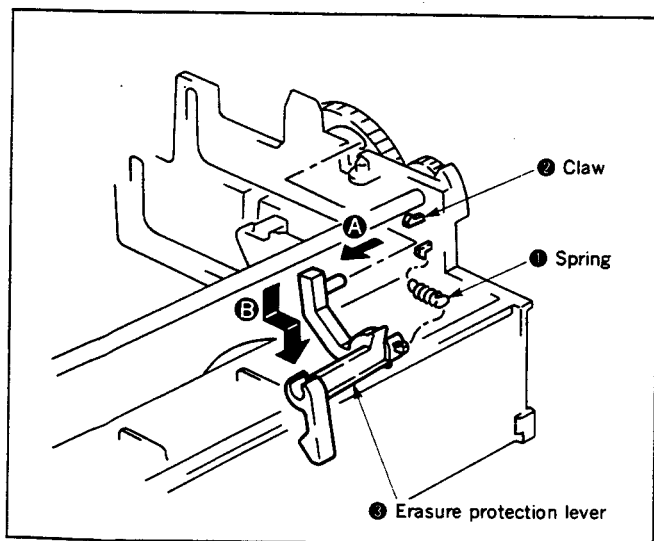


Fig. 3-2.

- After grease coated parts such as gears are replaced, re-grease the replaced part.
- Do not touch the guides (taped surface) and brake shoe directly with your fingers or grease them, etc.
- Gears must be mounted so that they mesh with each other.

3-1-3. Gear cover ass'y (Fig. 3-3)

- 1) Disengage the four claws ①, then remove the gear cover ass'y ②.

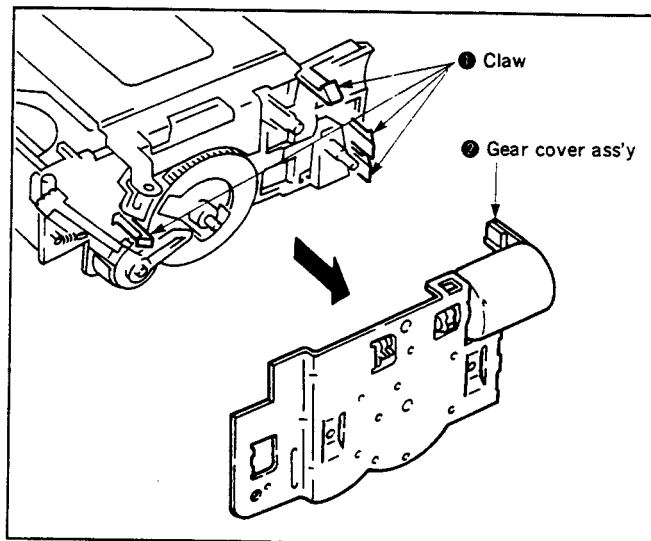


Fig. 3-3.

3-1-4. Loading motor, worm gear (FL), worm wheel (FL), worm bearing (Fig. 3-4)

- 1) Remove washer 3 ①, then pull out the worm wheel (FL) ②.
- 2) Remove the two screws ③, then remove the loading motor ④.
- 3) Remove the worm gear (FL) ⑤ and worm bearing ⑥.

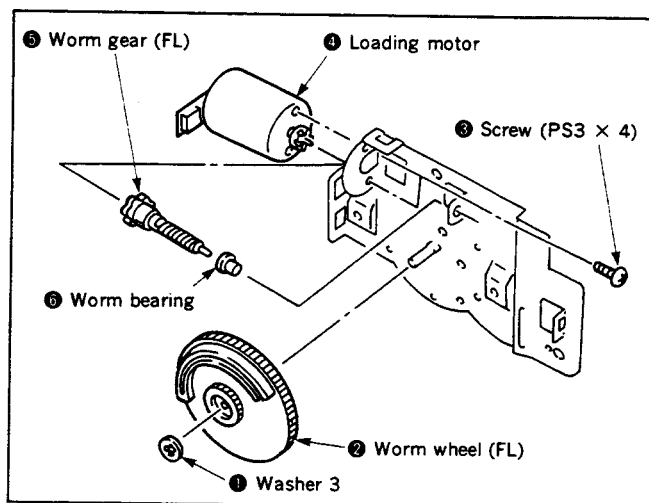


Fig. 3-4.

3-1-5. Door OPEN/CLOSE arm (Fig. 3-5)

- 1) Remove the spring ❶.
- 2) Pull out the door OPEN/CLOSE arm ❷.

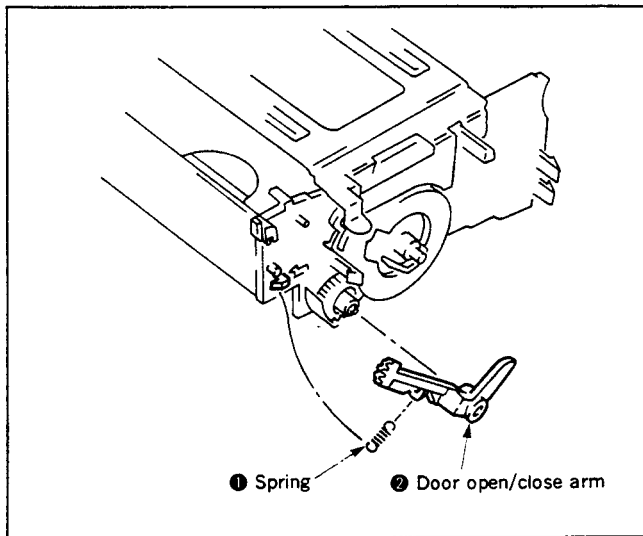


Fig. 3-5.

[Precautions on remounting] (Figs. 3-6 and 3-7.)

- When mounting the gear cover ass'y, match up the two holes on the gear cover ass'y with the two holes on the worm wheel (FL) and then with the hole on the right drive arm ass'y.
- Mesh the FL door and the door OPEN/CLOSE arm together as shown in A section in the figure below.
- The erasure protection lever shaft must fit into the groove on the left drive arm ass'y.

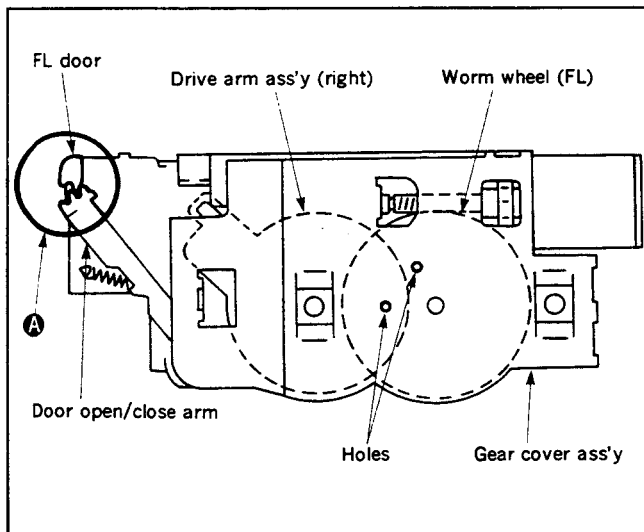


Fig. 3-6.

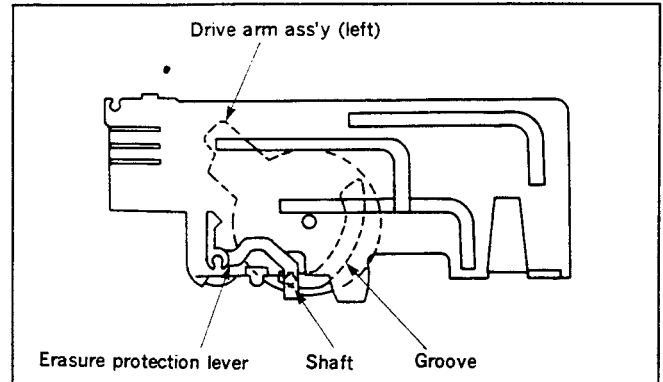


Fig. 3-7.

3-2. TS ASS'Y AND GUIDE ROLLER ASS'Y No. 2 (Fig. 3-8)

- 1) Remove the spring ❶.
- 2) Remove the TS ass'y ❷ in the direction of arrow A.
- 3) Turn guide roller ass'y No. 2 ❸ in the direction of arrow B and pull it out.

[Precautions on remounting]

- Clean the surface of guide roller No. 2 ❸ where the tape is attached.
- Apply lubricant over the section shown in Figure A below.

[Adjustment after replacement]

- Perform tape path adjustments as described in 4-1.

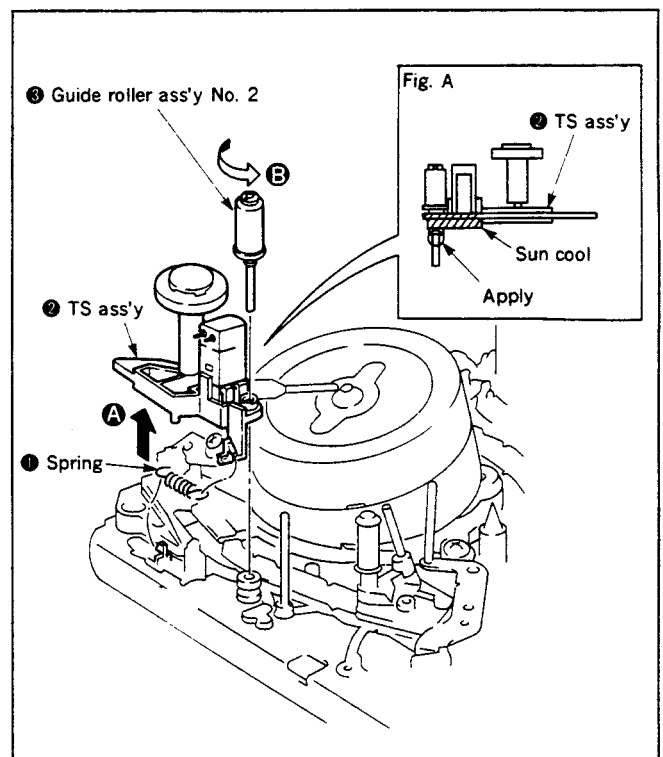


Fig. 3-8.

3-3. ACE ASS'Y (Fig. 3-9)

- 1) Slide the torsion coil spring ① in the direction of the arrow.
- 2) Remove the nylon nut N3 ②, then pull out the ACE ass'y ③.
- 3) Remove the ACE adjuster screw ④.

[Precautions on remounting]

- Clean the surface of the ACE ass'y ③ where the tape is attached.
- Hook both ends of the torsion coil spring ① to the ass'y as shown in Figure A below.
- Adjust the ACE adjuster screw ④ to the height shown in Figure A.

[Adjustment after replacement]

- Perform tape path adjustments as described in 4-1.

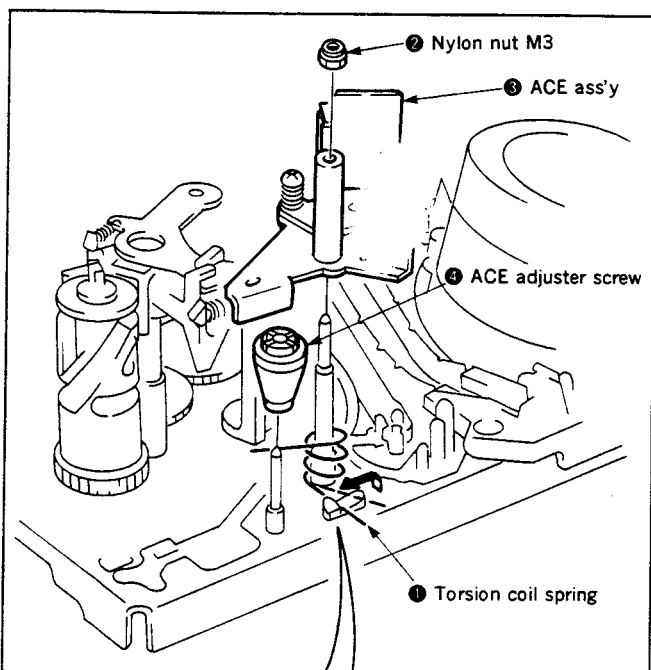


Fig. 3-9.

3-4. DRUM ASS'Y (Fig. 3-10)

- 1) Remove the three screws ①, then remove the drum ass'y ②.

[Precautions on remounting]

- Do not touch the head tips ③ and the ground plate ④ directly with your fingers or tools.
- Clean the surface of the drum ass'y ② where a tape is attached.
- The stopper ⑤ must be attached at the point shown in the figure below.
- Screws must be fastened with a $6\text{kg}\cdot\text{cm}$ ($\pm 1\text{kg}\cdot\text{cm}$) screw fastening torque. (The screws can be mounted in any order.)

[Adjustment after replacement]

- Perform tape path adjustments as described in 4-1.

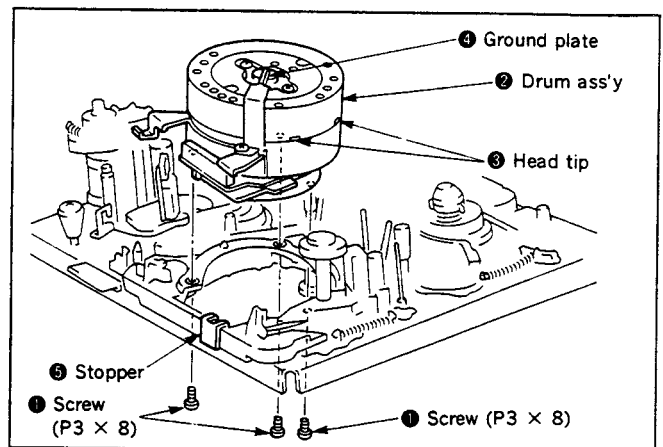


Fig. 3-10.

3-5. DRUM BASE ASS'Y (Fig. 3-11)

- 1) Remove the drum. (Refer to 3-4.)
- 2) Remove the three screws ①, then remove the drum base ass'y ②.

[Precautions on remounting]

- The space ③ for the drum base must be mounted in its previous position as shown in the figure below. [Note that some units do not feature the spacer ③.]
- Fastening torque must be $10\text{kg}\cdot\text{cm}$ ($\pm 1\text{kg}\cdot\text{cm}$)
- The screws must be mounted in order of (a), (b) and (c).

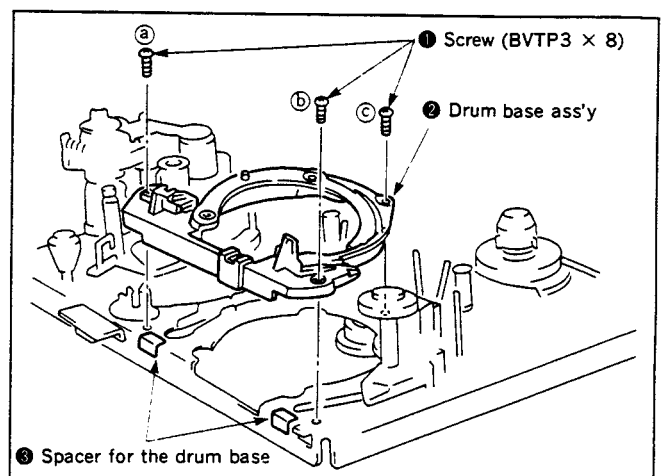


Fig. 3-11.

3-6. PINCH ROLLER ASS'Y AND ELEVATOR CAM (Fig. 3-12)

- 1) Remove the two claws ❶, then pull out the stopper ❷.
- 2) Pull out the pinch roller ass'y ❸.
- 3) Pull out the elevator cam ❹.

[Precautions on remounting]

- Clean the surface of the pinch roller ass'y ❸ where the tape is attached.
- Match up the □ marks on the elevator cam ❹ and cam gear, press ❺.

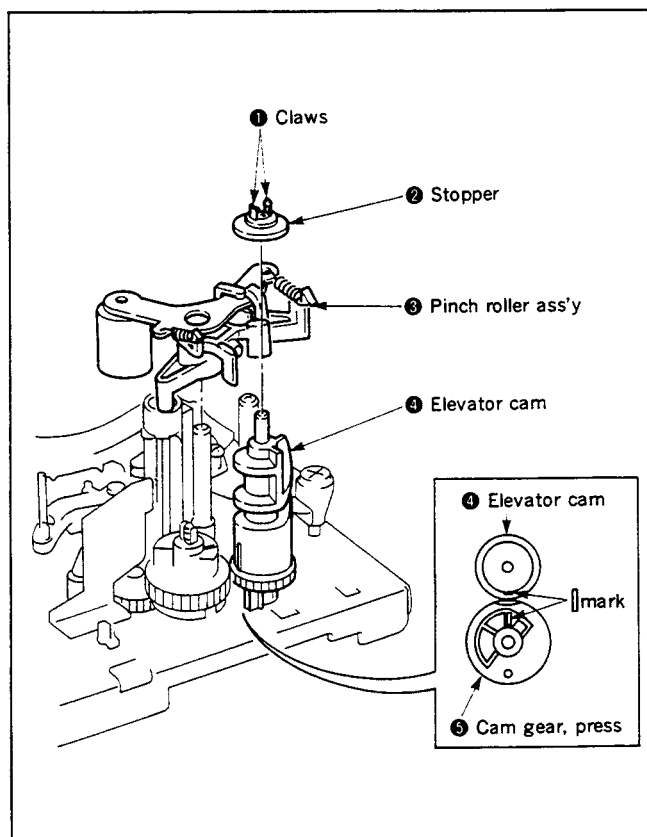


Fig. 3-12.

3-7. CAM GEAR, PRESS AND TRANSMISSION GEAR (Fig. 3-13)

- 1) Remove the pinch roller ass'y. (Refer to 3-6.)
- 2) Remove the screw ❶, then remove the lid release plate ❷.
- 3) Remove the two claws ❸, then pull out the cam gear, press ❹.
- 4) Remove the washer ❺, then pull out the transmission gear ❻.

[Precautions on remounting]

- Check the top and bottom of the transmission gear ❻.
- Match up the hole ❼ on the chassis with the hole ❼ on the cam gear, press ❹.
- Match up the □ mark on the cam gear, press ❹ with the □ mark on the elevator cam ❸.

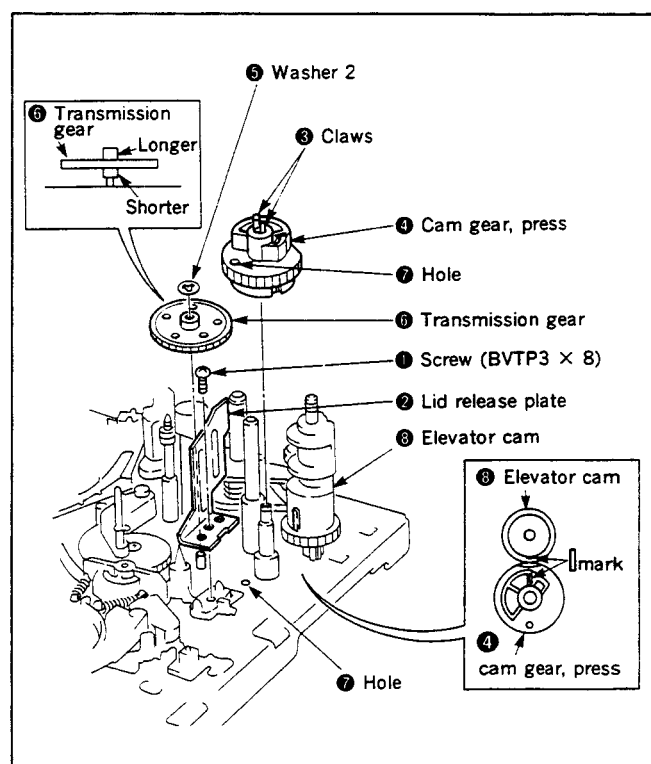


Fig. 3-13.

3-8. RVS ARM ASS'Y AND RVS CAM GEAR (Fig. 3-14)

- 1) Remove the nylon nut M2 ① and plastic washer ②.
- 2) Disengage the claw ③, then pull out the RVS arm ass'y ④.
- 3) Remove washer 2 ⑤, then pull out the RVS cam gear ⑥.

[Precautions on remounting]

- The holes ⑦ in the chassis and in the RVS cam gear ⑥ must match up. Also, make sure to match up the holes ⑨ on the cam gear, press ⑧ and the chassis.
- The spring ⑩ must be hooked as shown in Fig. A below.
- Clean the surface of the RVS arm ass'y ④ where a tape is attached.
- Apply 1/2 drop of lubricant to the shaft ⑪.

[Adjustment after replacement]

- Perform tape path adjustments as described in 4-1.

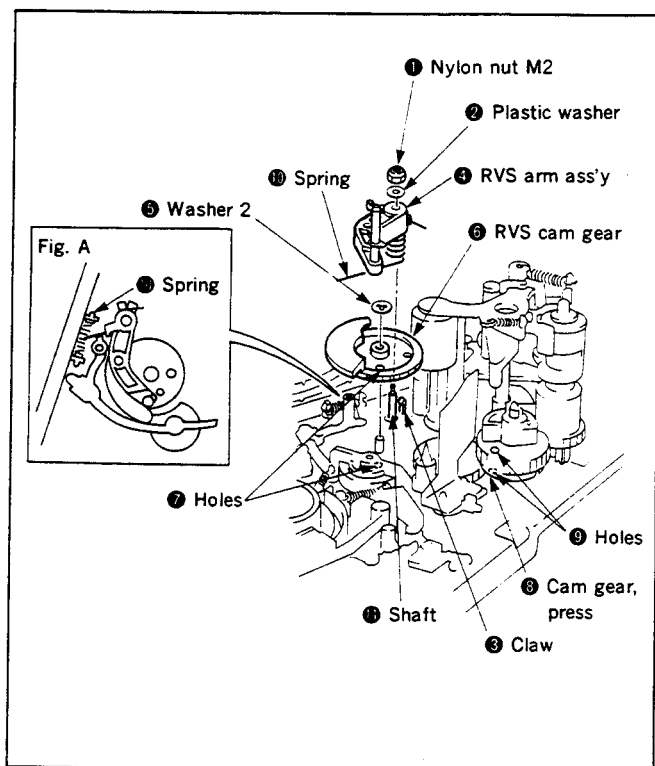


Fig. 3-14.

3-9. GUIDE No. 7 (Fig. 3-15)

- 1) Remove the nylon nut M3 ①.
- 2) Pull out guide flange No. 7 ②, guide sleeve No. 7 ③, guide flange No. 7 ④ and compression coil spring ⑤ in the given order.

[Precautions on remounting]

- Clean the surface of the guide sleeve No. 7 ③ where the tape is attached.
- Adjust the height of guide No. 7 to the height shown in Fig. A below.

[Adjustment after replacement]

- Perform tape path adjustments as described in 4-1.

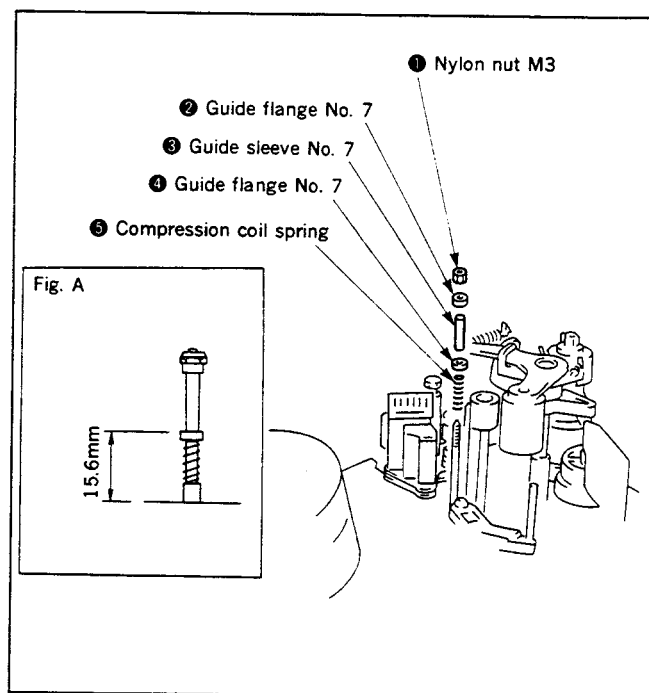


Fig. 3-15.

3-10. S-BRAKE ASS'Y, T-BRAKE ASS'Y (Fig. 3-16)

- 1) Remove the spring ①.
- 2) Disengage the claw ②, then pull out the S-brake ass'y ③.
- 3) Disengage the claw ④, then pull out the T-brake ass'y ⑤.

[Precautions on remounting]

- Do not touch the brake shoes for the respective S-brake ③ and T-brake ⑤ ass'y's directly with your fingers.
- Do not hold on to the S-brake ③ and T-brake ⑤ ass'y's by the arms when inserting them.
- The T-brake ass'y ⑤ must be positioned above the S-brake ass'y ③ as shown in Fig. A below.

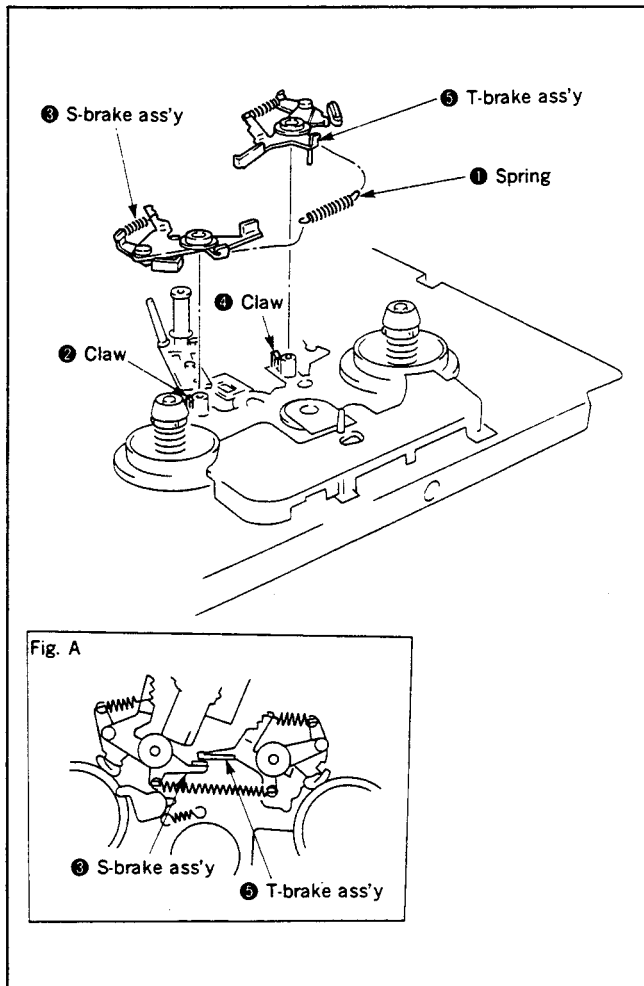


Fig. 3-16.

3-11. T-SOFT BRAKE ASS'Y REV BRAKE ARM (Fig. 3-17)

- 1) Remove the end of the spring ① from the REV brake arm ②.
- 2) Remove the end of the spring ③ from the chassis.
- 3) Disengage the claw ④, then pull out the T-soft brake ass'y ⑤.
- 4) Disengage the claw ⑥, then pull out the REV brake arm ②.

[Precautions on remounting]

- Do not touch the brake shoe of the T-soft brake ass'y ⑤ directly with your fingers.

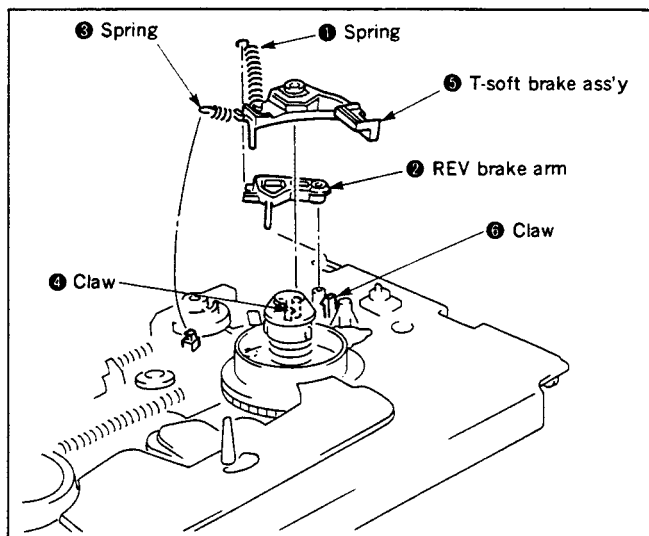


Fig. 3-17.

3-12. S-SOFT BRAKE ARM ASS'Y (Fig. 3-18)

- 1) Unhook the end of the spring ① from the chassis.
- 2) Disengage the claw ②, then pull out the S-soft brake arm ass'y ③.

[Precautions on remounting]

- The S-soft brake arm ass'y must not clamp down the tension regulator band ass'y ④ nor be positioned below the tension regulator band ④.

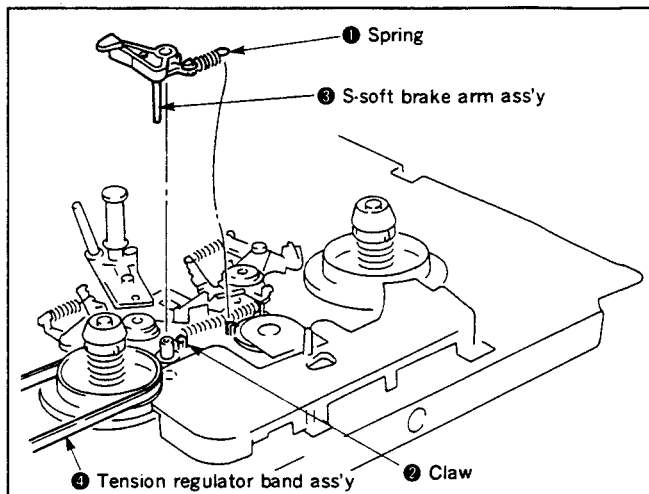


Fig. 3-18.

3-13. S-GUIDE AND T-GUIDE ROLLER ASSY'S (Fig. 3-19)

- 1) Loosen the setscrew ①, then remove the S-guide roller ass'y ② by turning it in the direction of the arrow A.
- 2) Loosen the setscrew ③, then remove the T-guide roller ass'y ④ by turning it in the direction of arrow B.

[Precautions on remounting]

- Clean the surfaces of the S-guide roller ② and T-guide roller ass'y's ④ where a tape is attached.

[Adjustment after replacement]

- Perform tape path adjustments as described in 4-1.

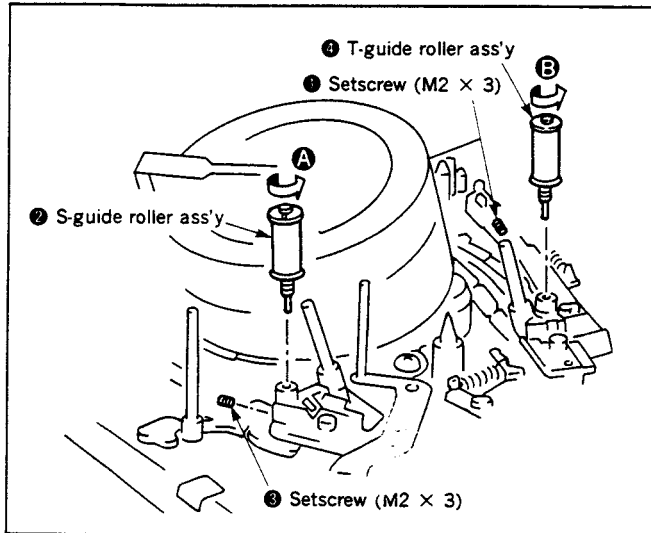


Fig. 3-19.

3-14. REEL LOCK RELEASE AND REW GEAR (Fig. 3-20)

- 1) Disengage the two claws ①, then remove the reel lock release ② along with the spring ③ (while the spring is still attached).
- 2) Next, pull out the REW gear ④ with the spring bearing ⑤ still attached).

[Precautions on remounting]

- Make sure that the small thrust bearing ⑥ remains attached.
- Make sure that the two claws ① lock the reel lock release ② in place.
- Apply 1/2 drop of lubricant to the shaft ⑦.
- Make sure that the spring ③ adheres to the reel lock release ② and that it fits inside the rib of the REW gear ④.
- Mount the REW gear ④ by meshing it with gear ⑧.

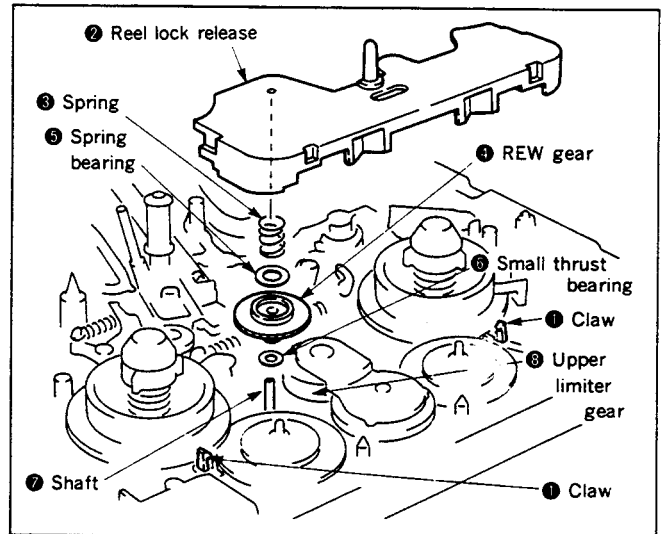


Fig. 3-20.

3-15. TENSION REGULATOR ARM ASS'Y, TENSION REGULATOR BAND ASS'Y (Fig. 3-21)

- 1) Remove the reel lock release ass'y. (Refer to Fig. 3-14.)
- 2) Disengage the three claws marked ① and the claw marked ②, then remove the tension regulator band ass'y ③.
- 3) Unhook the end of the spring ④ from the chassis.
- 4) Disengage the claw ⑤, then pull out the tension regulator arm ass'y ⑥.

[Precautions on remounting]

- Roll up the tension regulator band ③ on the S-reel by turning the S-soft brake arm ass'y ⑦ in the direction of the arrow.
- Hook the spring ④ at the center of the spring hook ⑧.
- Do not touch the brake shoe of the tension regulator band ass'y ③ directly with your fingers.
- Mount the tension regulator arm ass'y ⑥ at the position shown in Fig. A below.

[Adjustment after replacement]

- Check the back tension. (Refer to 4-1-1.)
- Perform tape path adjustments as described in 4-1.

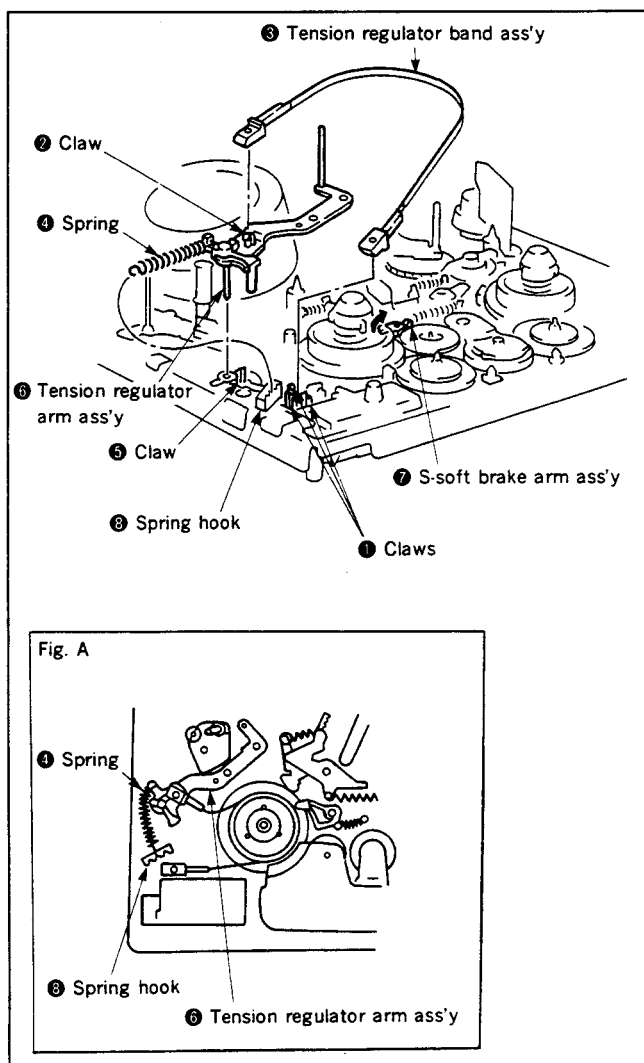


Fig. 3-21.

3-16. S TAKE-UP ASS'Y (Fig. 3-22)

- 1) Remove the tension regulator arm ass'y and the tension regulator band ass'y. (Refer to 3-15.)
- 2) Unhook the end of the spring ① from the S take-up arm ②.
- 3) Disengage the two claws ③, then remove the S take-up ass'y ④.

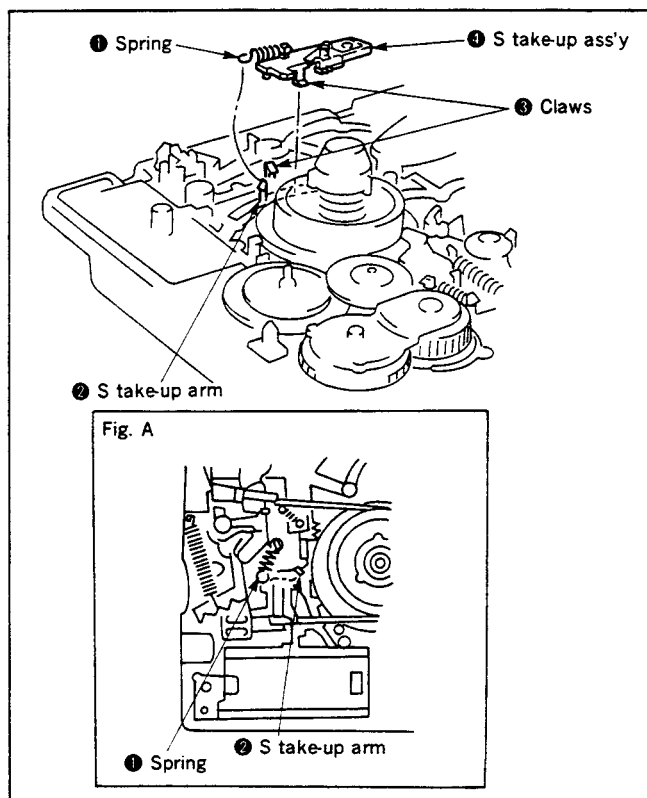


Fig. 3-22.

3-17. S-REEL ASS'Y (Fig. 3-23)

- 1) Remove the S-soft brake arm ass'y. (Refer to 3-12.)
- 2) Remove the reel lock release. (Refer to 3-14.)
- 3) Remove the tension regulator band ass'y. (Refer to 3-15.)
- 4) Turn the S-brake ass'y ① in the direction of the arrow.
- 5) Pull out the S-reel ass'y ②.

[Precautions on remounting]

- At least one reel stand thrust bearing ③ must be attached (but not more than two).
- Do not touch the outer edge of the S-reel ass'y ② directly with your fingers.
- Apply 1/2 drop of lubricant over the shaft ④.
- Mount the S-reel ass'y ② while meshing it with the relay gear ⑤.

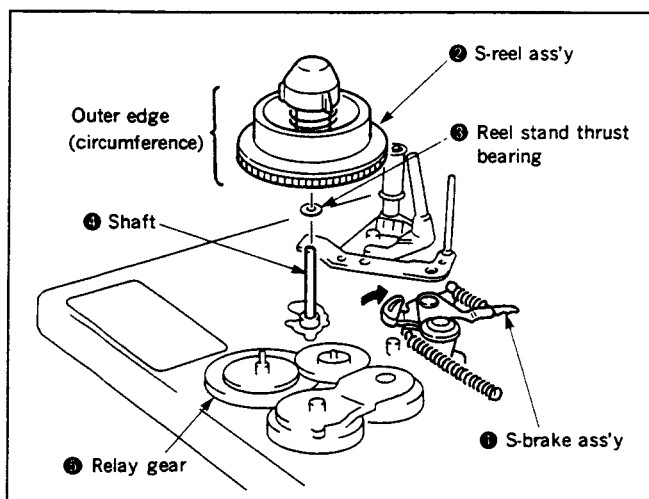


Fig. 3-23.

3-18. T-REEL ASS'Y (Fig. 3-24)

- 1) Remove the T-soft brake arm ass'y. (Refer to 3-11.)
- 2) Remove the reel lock release ass'y. (Refer to 3-14.)
- 3) Turn the T-brake ass'y ① in the direction of the arrow.
- 4) Pull out the T-reel ass'y ②.

[Precautions on remounting]

- At least one reel stand thrust bearing ③ must be attached (but not more than two).
- Do not touch the outer edge of the T-reel ass'y ② directly with your fingers.
- Apply 1/2 drop of lubricant on the shaft ④.
- Mount the T-reel ass'y ② while meshing it with the relay gear ⑤.

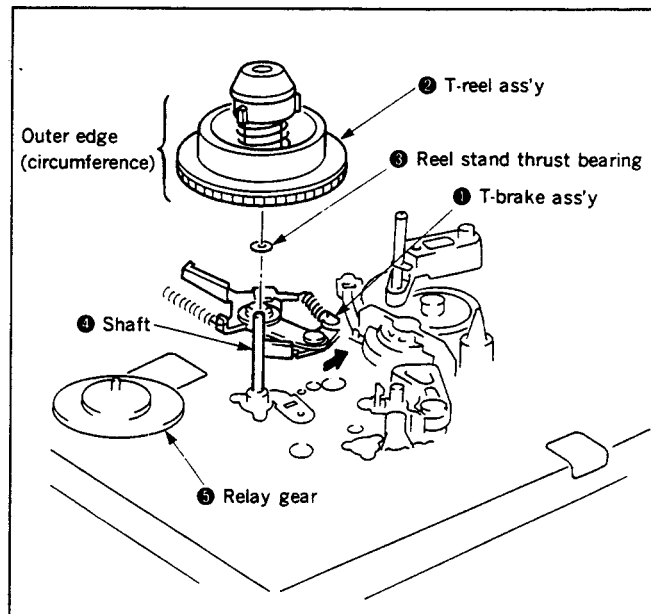


Fig. 3-24.

3-19. PENDULUM ARM ASS'Y (Fig. 3-25)

- 1) Remove the reel lock release ass'y. (Refer to 3-14.)
- 2) Remove the washer 2 ①, then pull out the pendulum arm ass'y ②.

[Precautions on remounting]

- Fit the boss on the pendulum cap ③ into the gap in the pendulum slide plate ④.
- The plastic slider ⑤ must be attached.
- Apply 1/2 drop of lubricant on the shaft ⑥.
- Mount the pendulum arm ass'y ② by meshing it with the upper limiter gear ⑦.

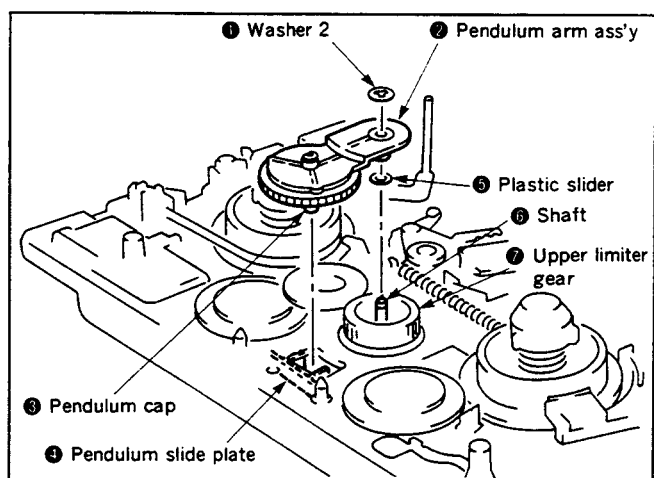


Fig. 3-25.

3-20. RELAY GEAR (Fig. 3-26)

- 1) Remove the reel lock release and REW gear. (Refer to 3-14.)
- 2) Remove the S-reel ass'y. (Refer to 3-17.)
- 3) Remove the T-reel ass'y. (Refer to 3-18.)
- 4) Pull out the two relay gears ①.

[Precautions on remounting]

- The relay gears ① must rotate smoothly after remounting.
- Apply 1/2 drop of lubricant to the respective shafts ②.

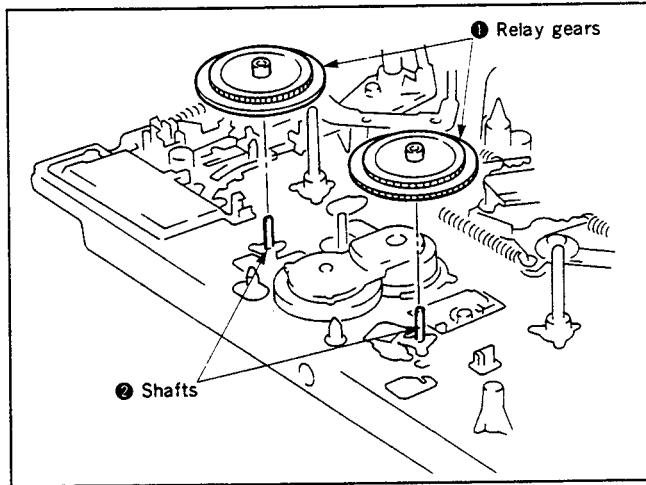


Fig. 3-26.

3-21. ADJUSTER ARM ASS'Y (Fig. 3-27)

- 1) Remove screw ①.
- 2) Remove washer ⑥.
- 3) Remove the end of the spring ② hooked to the chassis.
- 4) Remove the end of the timing belt ③ from the capstan motor arm ass'y.
- 5) Disengage the claw ④, then remove the adjuster arm ass'y.

[Precautions on remounting]

- First mount the adjuster arm ass'y ⑤, timing belt ③ and spring ②, then attach the washer ⑥ and fasten the screw ①.
- The screw fastening torque must be within 5kg·cm ($\pm 1\text{kg}\cdot\text{cm}$).

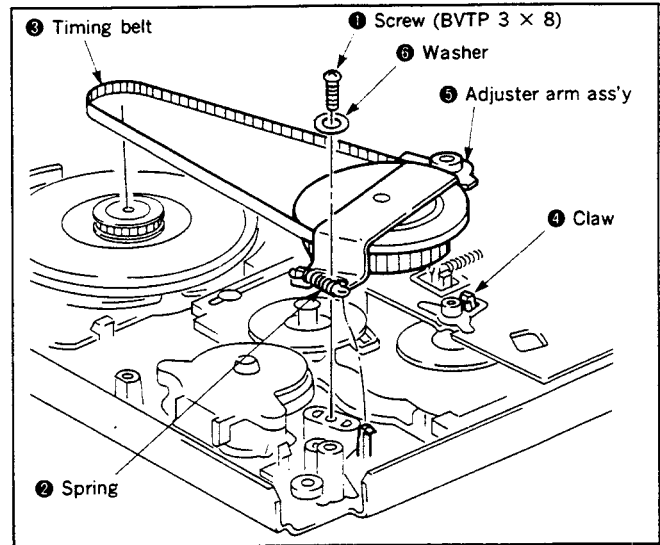


Fig. 3-27.

3-22. CAP BRAKE ASS'Y (Fig. 3-28)

- 1) Loosen the screw ①, then push the timing belt ② in the direction of the arrow.
- 2) Unhook the end of the spring ③ from the chassis.
- 3) Disengage claw ④, then pull out CAP brake ass'y ⑤.

[Precautions on remounting]

- Do not touch the brake shoe of the CAP brake ass'y ⑤ directly with your fingers.

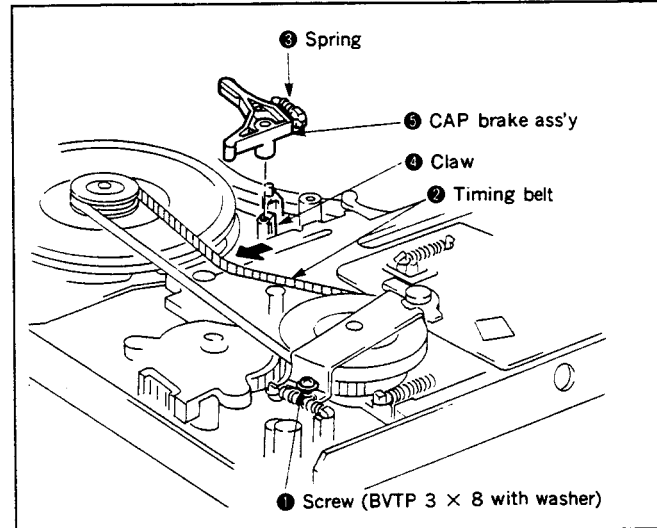


Fig. 3-28.

3-23. CAPSTAN MOTOR (Fig. 3-29)

- 1) Turn the ACE ass'y ① in the direction of arrow A as shown in Fig. A below, then remove three screws ②.
- 2) Remove screw ③, then remove the rotor clamp ④.
- 3) Turn the CAP brake ass'y ⑤ in the direction of arrow B, then pull out the capstan motor ⑥.

[Precautions on remounting]

- Clean the section of the capstan motor ⑥ where the tape is attached.
- Do not touch the brake shoe of the CAP brake ass'y ⑤ directly with your fingers.
- Of the three screws ②, first fasten screw A temporarily, then fasten screws B and C firmly, followed by screw A.
- The screw fastening torque must be within $3\text{kg}\cdot\text{cm} \pm 1\text{kg}\cdot\text{cm}$.

[Adjustments after mounting]

- Perform tape path adjustments as described in 4-1.

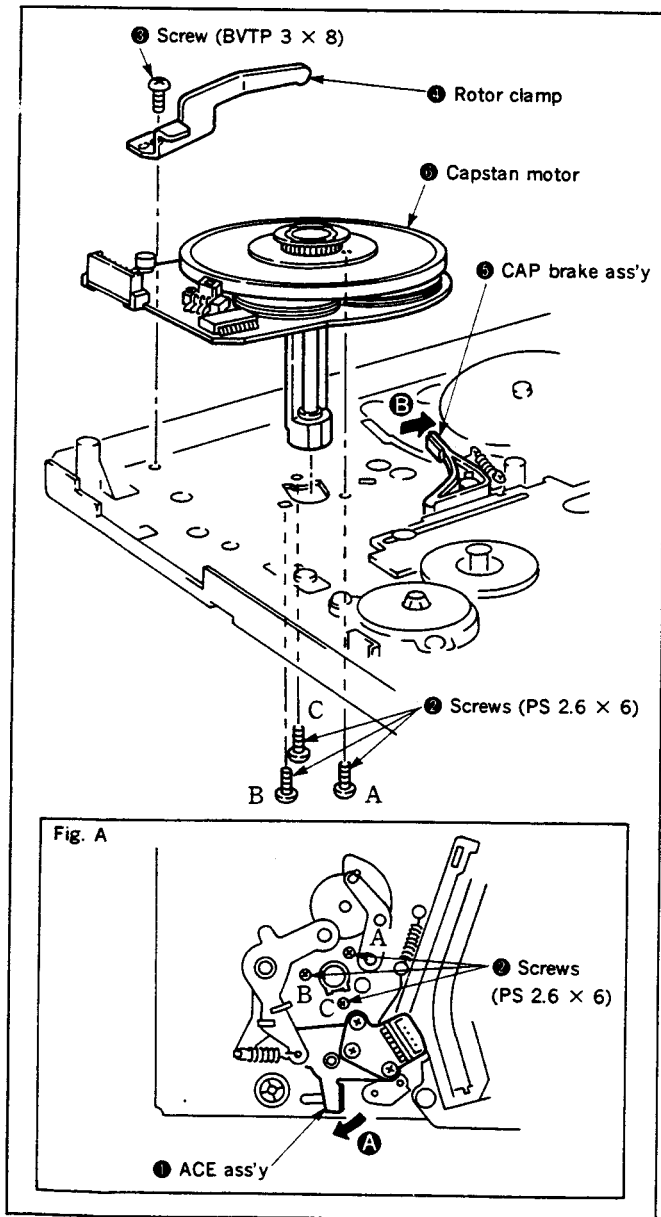


Fig. 3-29.

3-24. ROTARY SWITCH (Fig. 3-30)

- 1) Remove the adjuster arm ass'y. (Refer to 3-21.)
- 2) Remove the screws ① and ②, then pull out the rotary switch ③.

[Precautions on remounting]

- Match up the ● mark on the rotary switch ③ with the ▲ mark on the RKB cam gear ④ as shown in Fig. A.
- Match up holes ⑥ on the pendulum arm ⑤ and the chassis.

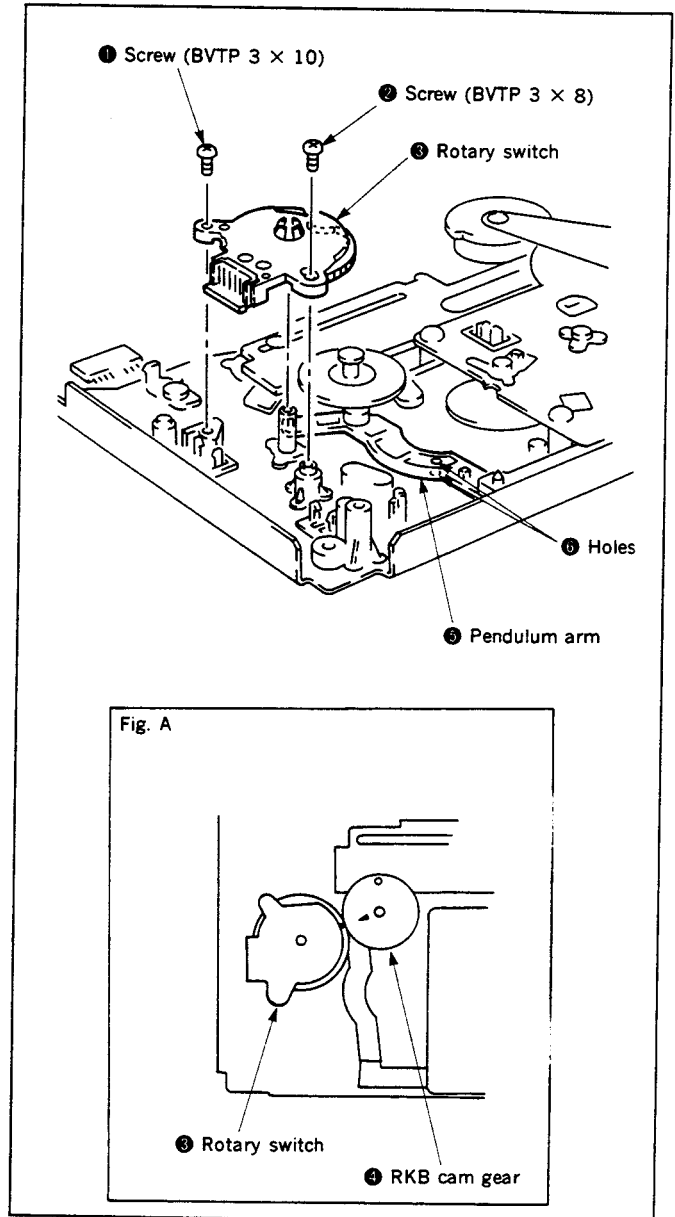


Fig. 3-30.

3-25. RKB CAM GEAR (Fig. 3-31)

- 1) Remove the adjuster arm ass'y. (Refer to 3-22.)
- 2) Remove washer 2 ①, then pull out the RKB cam gear ②.

[Precautions on remounting]

- When the limiter arm ③ is pushed in the direction of the arrow, the pin must fit into the notch on the RKB cam gear ②.
- The ■ mark on rotary switch ⑤ must match up with the ◀ mark on the RKB cam gear ② as shown in Fig. A.
- Apply 1/2 drop of lubricant to shaft ⑥.
- Match up the holes ④ on the RKB cam gear ② and the mode slide plate.

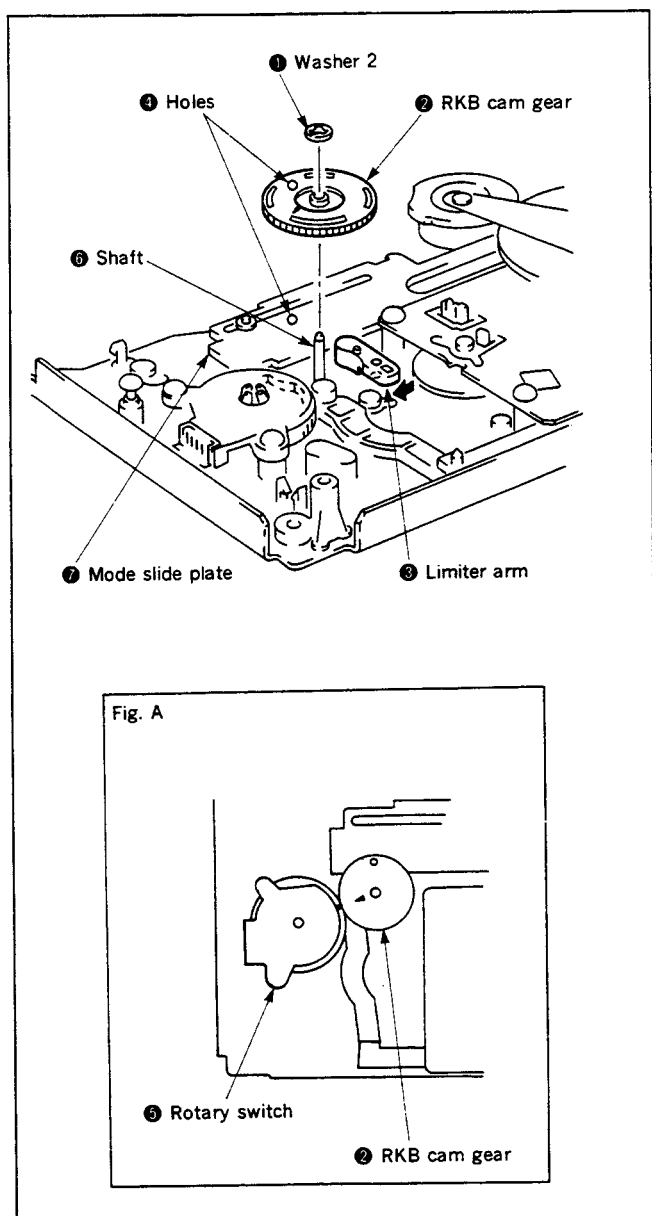


Fig. 3-31.

3-26. SUB-CHASSIS ASS'Y (Fig. 3-32)

- 1) Remove the reel lock release arm and REW gear. (Refer to 3-15.)
- 2) Remove the pendulum arm ass'y. (Refer to 3-19.)
- 3) Remove the adjuster arm ass'y. (Refer to 3-22.)
- 4) Remove the three screws ①, then remove sub-chassis ass'y ②.

[Precautions on remounting]

- The switching arm ③ must be switched in the direction of the arrow.
- The screws must be fastened in order of a, b and c.
- Mount the sub-chassis carefully so as not to damage the gear.
- The corner edge of the lug terminal ④ must fit into the gap between the chassis ass'y ② and mechanism chassis.

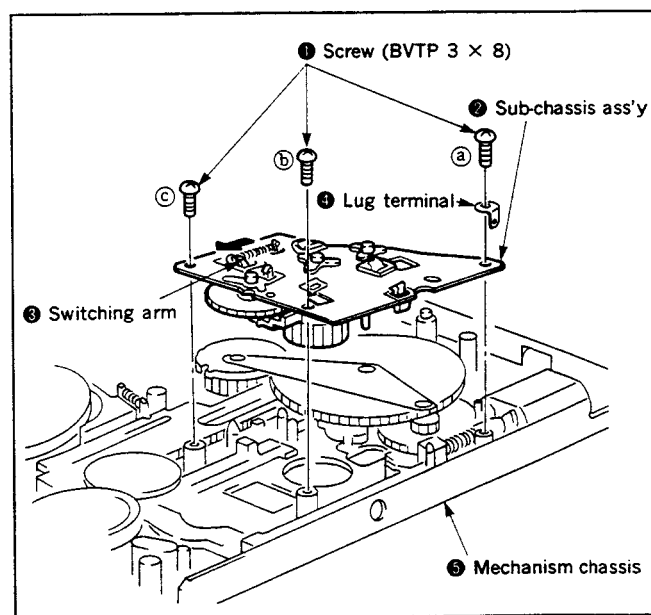


Fig. 3-32.

3-27. PENDULUM SLIDE PLATE, PENDULUM ARM (Fig. 3-33)

- 1) Remove the rotary switch. (Refer to 3-24.)
- 2) Remove the RKB cam gear. (Refer to 3-25.)
- 3) Remove the sub-chassis ass'y. (Refer to 3-26.)
- 4) Disengage the two claws ①, then pull out the pendulum slide plate ②.
- 5) Unhook the spring ③.
- 6) Disengage the claw ④, then pull out pendulum arm ⑤.

[Precautions on remounting]

- The shaft ⑥ must fit into hole ⑦.

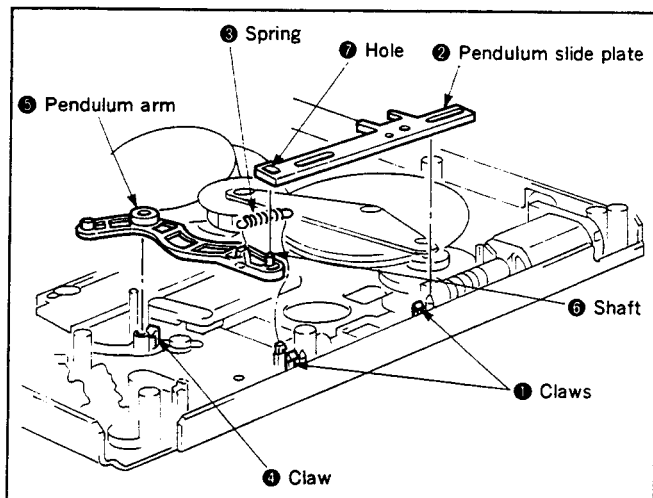


Fig. 3-33.

3-28. THE LIMITER ARM AND LIMITER SLIDE PLATE (Fig. 3-24)

- 1) Remove the RKB cam gear. (Refer to 3-25.)
- 2) Remove the sub-chassis. (Refer to Fig. 3-26.)
- 3) Disengage the claw ①, then pull out the limiter arm ②.
- 4) Disengage the two claws ③, then pull out the limiter slide plate ④.

[Precautions on remounting]

- The shaft ⑤ must fit into the hole ⑥.

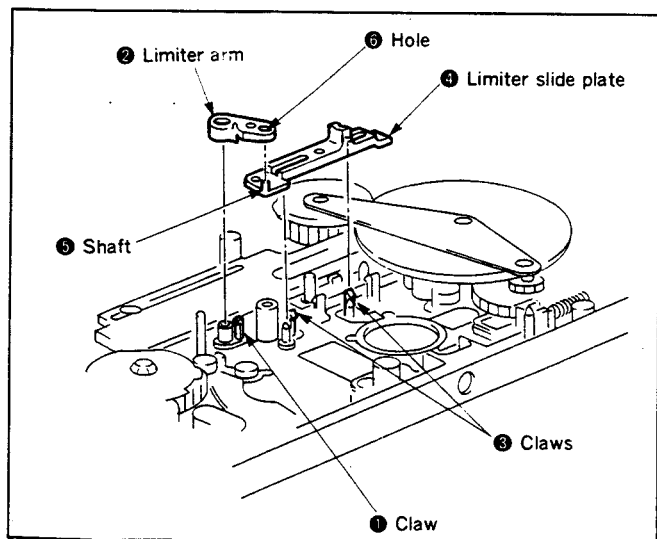


Fig. 3-34.

3-29. CAM MOTOR (Fig. 3-35)

- 1) Remove the sub-chassis ass'y. (Refer to 3-26.)
- 2) Disengage the six claws ①, then remove the cam motor ② and worm gear ③.

[Precautions on remounting]

- Check the meshing of cam motor ② and worm gear ③.

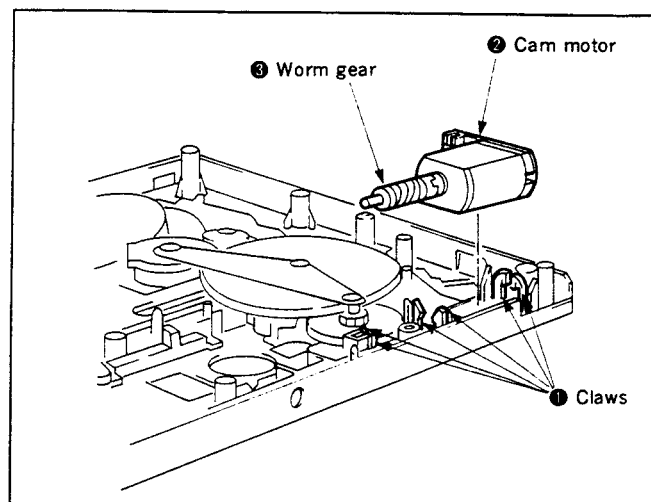


Fig. 3-35.

3-30. CAM GEAR (Fig. 3-36)

- 1) Remove the three washers 2 ①, then pull out the cam gear holder ②.
- 2) Pull out the cam gear ③.

[Precautions on remounting]

- Match up the right loading gear ass'y, the tension regulator arm, the S take-up arm, the work wheel, the brake arm and the mode slide plate with respective holes ④ to ⑨ on the chassis in that order.
- Match up the hole ⑩ on the mode slide plate with the hole ⑩ in cam gear ③.
- Apply 1/2 drop of lubricant to the shaft ⑪.

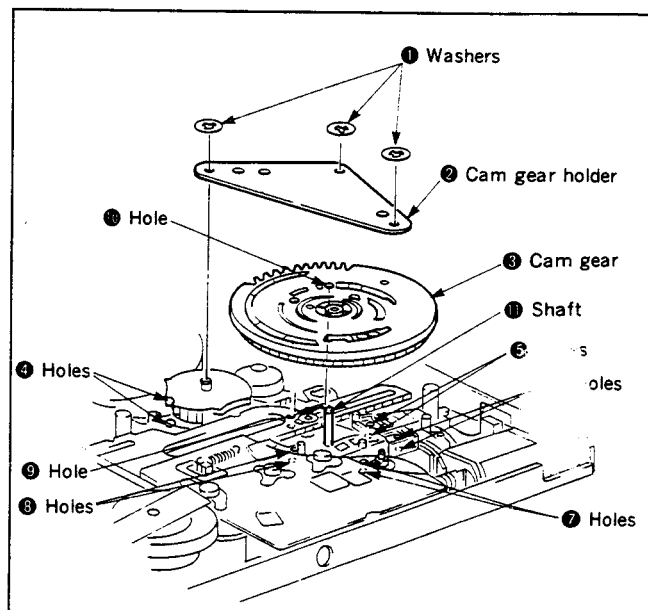


Fig. 3-36.

3-31. TENSION REGULATOR ARM, S TAKE-UP ARM (Fig. 3-37)

- 1) Remove the cam gear. (Refer to 3-30)
- 2) Disengage the claw ①, then remove the tension regulator arm ②.
- 3) Remove the end of the spring ③ from the S take-up arm ④.
- 4) Disengage the claw ⑤, then pull out S take-up arm ④.

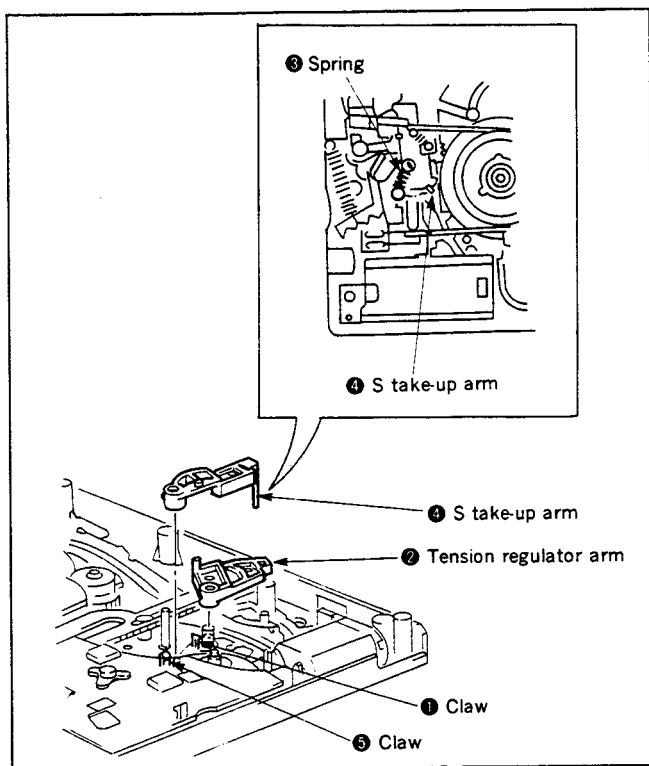


Fig. 3-37.

3-32. MODE SLIDE PLATE, RVS RELAY GEAR (Fig. 3-38)

- 1) Remove the RKB cam gear. (Refer to 3-25.)
- 2) Remove the cam gear. (Refer to 3-30.)
- 3) Remove the two washers 2 ①.
- 4) Turn the CAP brake ② in the direction of the arrow, then pull out mode slide plate ③.
- 5) Pull out the RVS relay gear ④.

[Precautions on remounting]

- Match up the hole ⑤ on the RVS relay gear ④ with hole ⑤ in the chassis.
- Match up the holes ⑥ on the mode slide plate ③ with holes ⑥ in the chassis.
- Apply 1/2 drop of lubricant to the shaft ⑦.

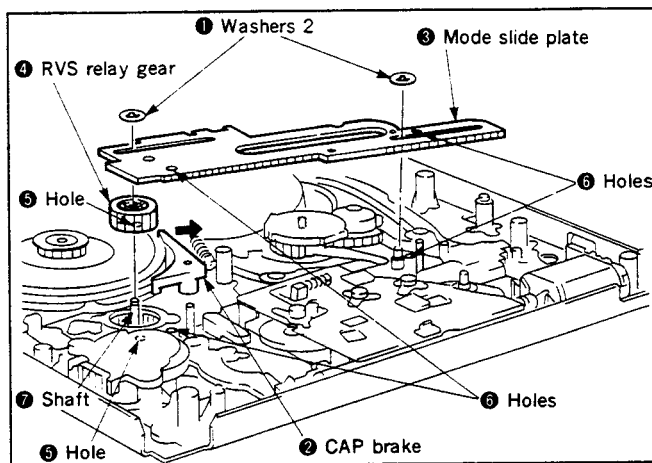


Fig. 3-38.

3-33. BRAKE ARM, BRAKE SLIDE PLATE (Fig. 3-39)

- 1) Remove the sub-chassis. (Refer to 3-26.)
- 2) Remove the cam gear. (Refer to 3-30.)
- 3) Disengage the claw ①, then pull out the brake arm ②.
- 4) Disengage the two claws ③, then pull out the brake slide plate ④.

[Precautions on remounting]

- Insert the shaft ⑤ into hole ⑥.

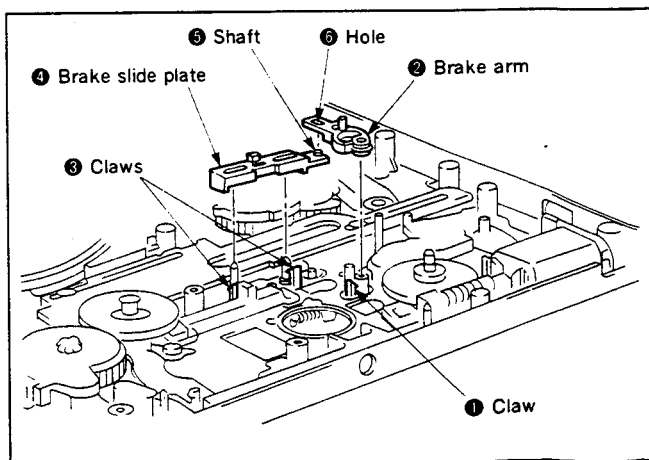


Fig. 3-39.

3-34. RIGHT SHUTTLE, RIGHT LOADING GEAR ASSY'S (Fig. 3-40)

- 1) Remove the mode slide plate. (Refer to 3-32.)
- 2) Remove the plastic slider ❶, then pull out the right shuttle ass'y ❷.
- 3) Pull out the right loading gear ass'y ❸.

[Precautions on remounting]

- Match up the ▲ mark on the right loading gear ass'y ❸ with the ▲ mark on the left loading gear ass'y ❹ as shown in Fig. A below.
- Apply 1/2 drop of lubricant to the shaft ❺.
- Do not hold on to the arm when pressing on the right loading gear ❸.
- Clean the section of the right shuttle ass'y ❷ where the tape is attached.

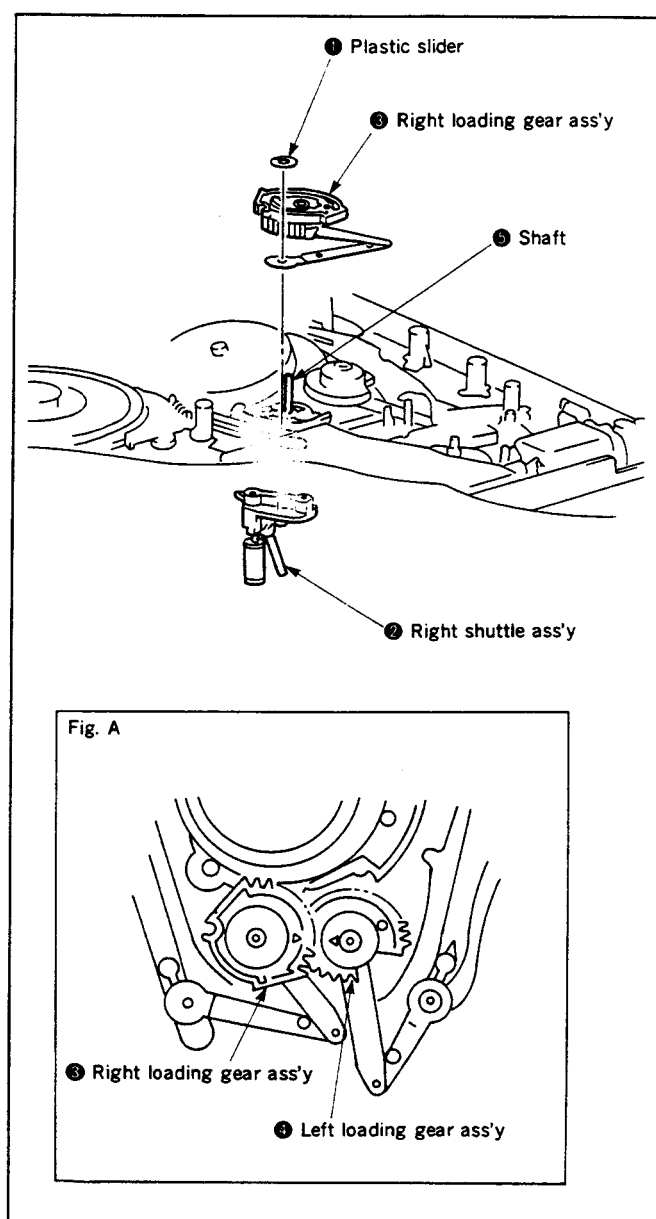


Fig. 3-40.

3-35. LEFT SHUTTLE ASS'Y, LEFT LOADING GEAR ASS'Y (Fig. 3-41)

- 1) Remove the right shuttle ass'y and right loading gear ass'y. (Refer to 3-34.)
- 2) Remove the plastic slider ❶, then pull out the left shuttle ass'y ❷.
- 3) Remove washer 2 ❸, then pull out the left loading gear ass'y ❹.

[Precautions on remounting]

- Apply 1/2 drop of lubricant to shaft ❺.
- The tension regulator arm ass'y ❻ and left shuttle ass'y ❷ must be positioned as shown in Fig. A below.
- Do not hold on to the arm of the left loading gear ass'y ❹ when the left loading gear ass'y ❹ is pressed.
- Clean the section of the left shuttle ass'y ❷ where the tape is attached.

[Adjustments after replacement]

- Form tape path adjustments as described in 4-1.

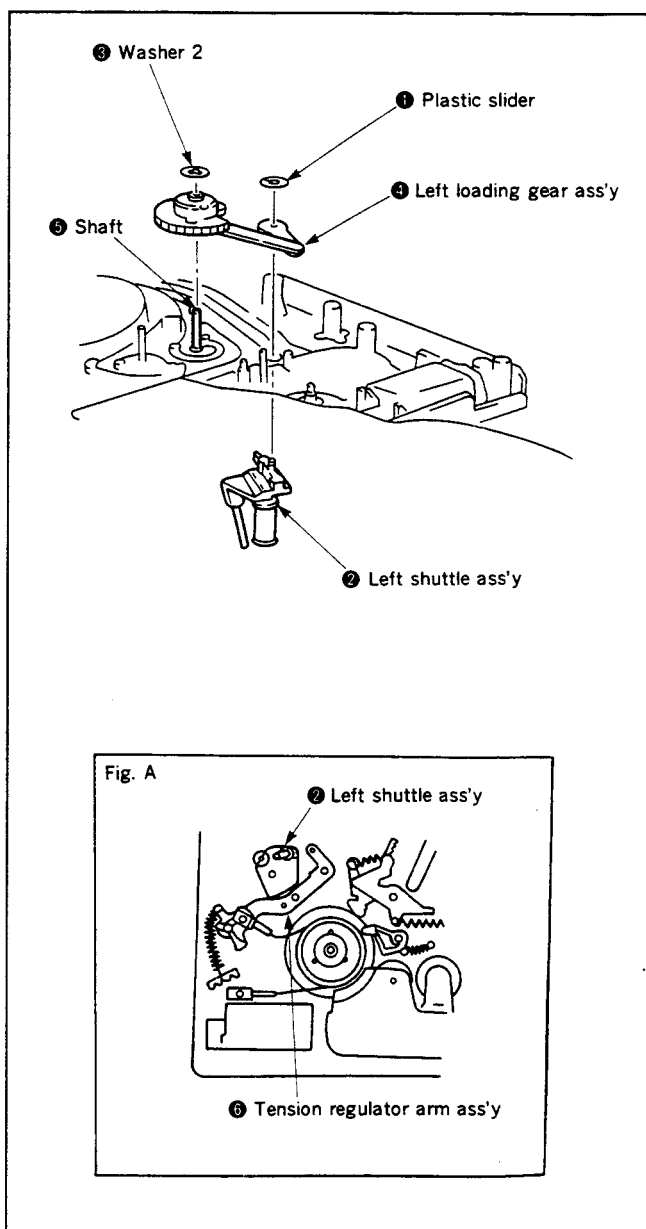


Fig. 3-41.

3-36. C-ROLLER ARM ASS'Y, C-ROLLER RELEASE LEVER (Fig. 3-42)

- 1) Disengage the claw ①, then pull out the C-roller arm ass'y ②.
- 2) Unhook the end of the spring ③ from the chassis.
- 3) Disengage the two claws ④, then pull out the C-roller release lever ⑤.

[Precautions on remounting]

- Mount C-roller arm ass'y ② so that the hole ⑥ on the C-roller arm ass'y ② fits into the boss ⑦ on the C-roller release lever ⑤.

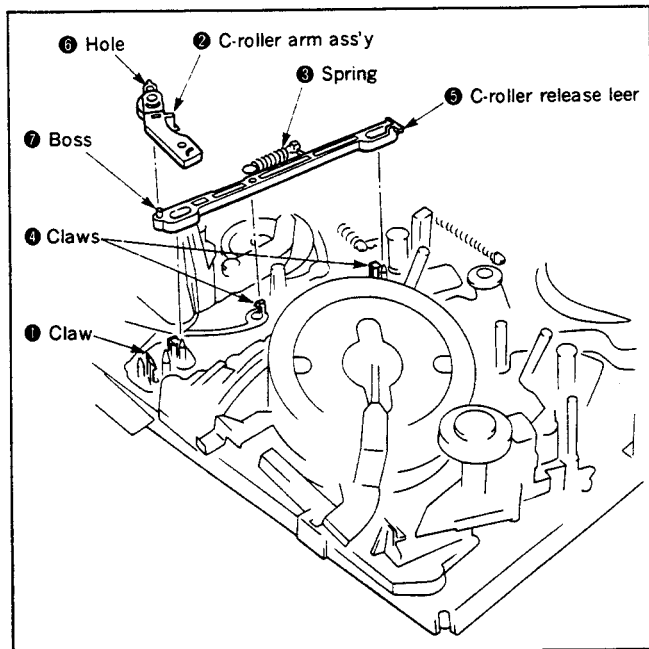


Fig. 3-42.

4. ADJUSTMENT

4-1. TAPE PATH ADJUSTMENT

The "Tape path" refers to the route of the tape from the supply reel disc to the take-up reel disc via the video heads. Each component part of the tape transport system, particularly the surface of parts which make direct contact with the tape must always be kept clean, free of dust, oil, scratches and so forth.

The tape path system is factory preadjusted. when parts of the tape transport system are replaced, be sure to make the required adjustments as precisely as possible in order to ensure stable tape transport.

4-1-1. Tension regulator position/tension adjustment (Fig. 4-1.)

Purpose: Stabilizes contact of the video head and the tape to maintain the tension of the tape so that it feeds at a constant level.

● Position adjustment

Mode	Threading is completed without a cassette loaded. (Refer to section 1-2.)
Adjustment locations	Tension band holder

[Adjustment method]

- 1) Allow the unit to go through the threading procedure without a cassette loaded.
- 2) Set the VTR unit to playback, then turn the tension band adjuster lever so that the gap between guide No. 0 and tension arm is within $4.5 \pm 0.4\text{mm}$. *(Set the unit to playback without a cassette loaded.)
- 3) After adjustment, go through the loading procedure once more without a cassette loaded, then check the position of the tension arm.

● Tension adjustment

Mode	Playback
Measuring instrument/tool	Torque cassette
Adjustment locations	Position for hooking the tension spring
Specification	28 to 34 g·cm

[Adjustment method]

- 1) Playback the torque cassette.
- 2) Check that the center value deviation reading on the torque cassette meets with the standards.
- 3) When the reading is higher than the standards: Move the spring toward direction **A**.
When the reading is less than the standards: Move the spring toward direction **B**.

Note: Move the spring to the tension spring hook position and recheck the tension arm position. If the arm position is misaligned, adjust the position and tension of the tension arm.

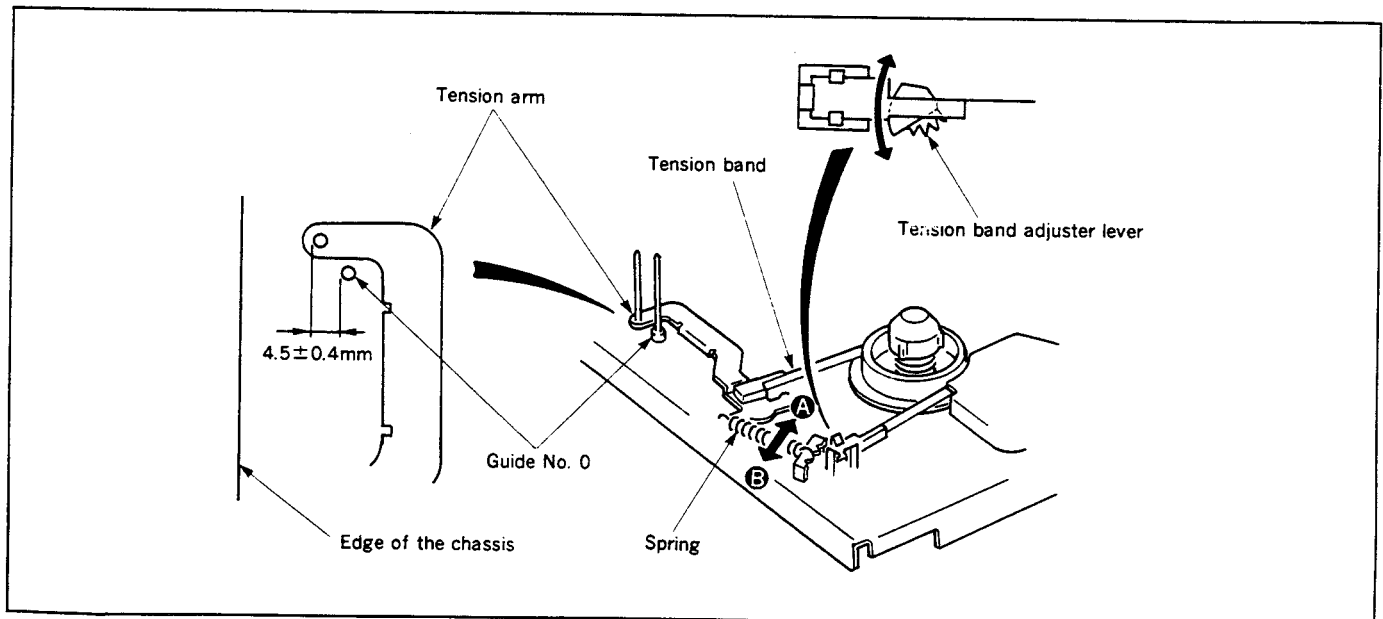


Fig. 4-1.

4-1-2. Height adjustment of the guide roller No. 2 (Fig. 4-2)

Mode	Playback
Tool	Blank tape
Adjustment locations	Guide roller height adjuster screw

[Adjustment method]

- 1) Load a new tape in the unit, then play it back.
- 2) Make sure that the lower flange of guide roller No. 2 does not curl up.
- 3) When the tape curls up : Turn the guide roller adjuster screw clockwise.
When the tape does not fit into the lower flange : Turn the guide roller adjuster screw counter-clockwise.
- 4) After the above check, separate the tension arm from the tape, then re-attach it slowly. At this time, check if the tape curls up at the lower flange of the guide roller No. 2 and if the curl disappears within 2 seconds.
- 5) If curl does not disappear in two seconds : Turn the adjuster screw clockwise.
If the tape does not curl up : Turn the adjuster screw counter-clockwise.

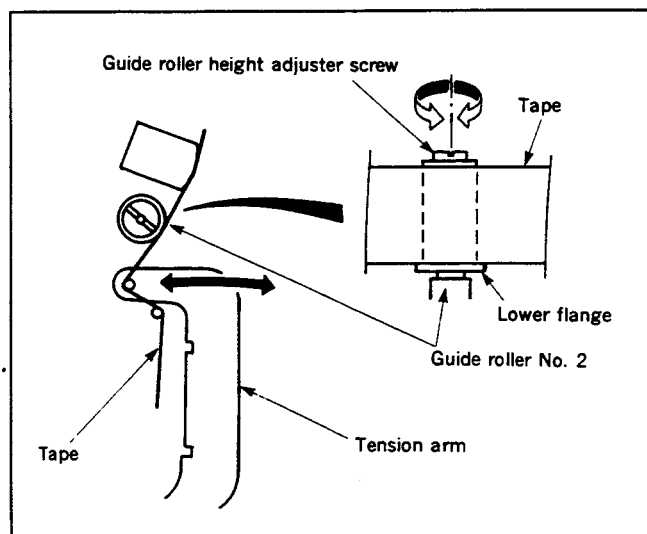


Fig. 4-2.

4-1-3. Height adjustment of guide roller No. 7 and the RVS arm (Fig. 4-3.)

Mode	Playback
Tool	Blank tape
Adjustment locations	Height adjuster nut

[Adjustment method]

- 1) Load the tape into the VTR and play it back, then adjust the height of the guide roller No. 7 so that the tape runs along the lower flange of guide roller No. 7.
- 2) If the guide roller is too low : Turn the height adjuster nut counter-clockwise.
If the guide roller is too high : Turn the height adjuster nut clockwise.
- 3) Run the tape in REV, then adjust the height of the RVS arm so that the tape runs along guide roller No. 7.
- 4) If the tape gets caught in the upper flange of guide roller No. 7 : Turn the RVS arm height adjuster nut clockwise.
- 5) If the tape catches on the lower flange of guide roller No. 7 : Turn the RVS arm height adjuster nut counter-clockwise.

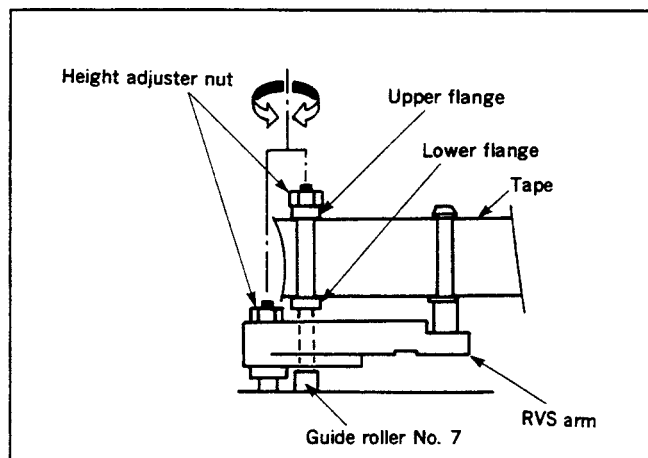


Fig. 4-3.

4-1-4. Height adjustment of guide rollers No. 3 and No. 6 (Fig. 4-4)

Mode	Playback
Signal	Hi-Fi alignment tape (Hi-Fi 400Hz)
Measuring instrument	Oscilloscope
Measuring point	CH-1 : Connector PB RF pin for RF PC board check. CH-2 : Connector RF SW P pin for RF PC board check.
Adjustment locations	Guide roller height adjuster screw.

[Adjustment method]

- 1) Tracking (playback): Turn off the auto tracking, then press the tracking buttons  and  simultaneously to set the tracking at the center position.
(If adjustment is made after the drum is replaced, the tracking must be set at the max. Rf output position.)
- 2) Height adjuster screw: Even out the RF output waveforms.
- 3) Press the tracking buttons (playback),  and  alternately.
- 4) Check that RF output drops the same amount at the front and rear edges.

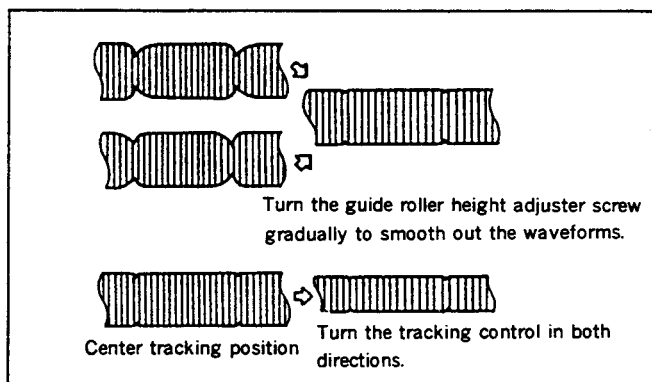


Fig. 4-4.

4-1-5. ACE head ass'y adjustment (rough adjustment) (Figs. 4-5 and 4-6)

Purpose : Allows the tape to make even contact with the head for recording and playback of the specified track.

Mode	Playback
Tool	Blank tape
Adjustment locations	Height adjuster nut, tilt adjuster screw

[Adjustment method]

- 1) Mount the ACE head ass'y. At this time, adjust the height so that the height of guide flange No. 7 matches the level of the lower edge of the control head.
- 2) Remove the adjustment tool and load a new tape, then set the unit for playback.
- 3) Check that the tape does not curl or raise up noticeably near the ACE head.
- 4) If the yape curls up or rarises noticeably, readjust the tilt adjuster screw, the azimuth adjuster screw and the height adjuster nut.
(The height of the ACE head should be adjusted so that the lower edge of the tape is approx. 0.1 to 0.15 mm from the control head.)
- 5) Perform precision adjustment.

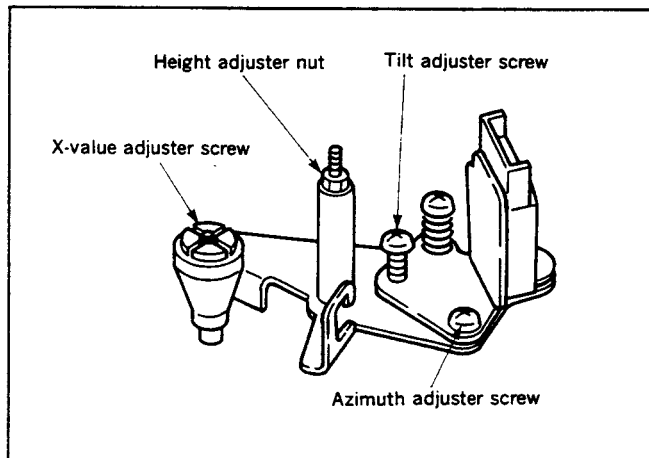


Fig. 4-5.

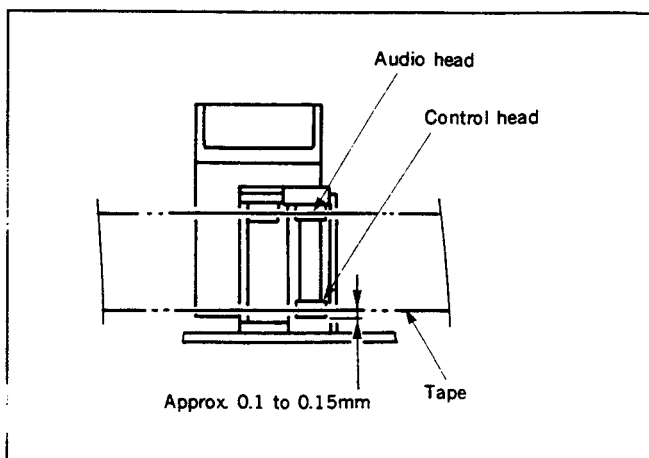


Fig. 4-6.

4-1-6. ACE head assembly adjustment (precision adjustment)

Mode	Playback
Signal	Alignment tape (JVC-MH-1 1KHz)
Measuring instrument	Oscilloscope
Measuring point	Audio output terminal
Adjustment locations	Azimuth adjuster screw Height adjuster nut Tilt adjuster screw

[Adjustment method]

- 1) Adjust the tilt adjuster screw in the FWD or REV mode so that the lower flange of guide No. 7 does not curl up or raise.
- 2) Alternately adjust the azimuth adjuster screw, the height adjuster nut, and the tilt adjuster screw to maintain even audio output at maximum with minimum deviation.

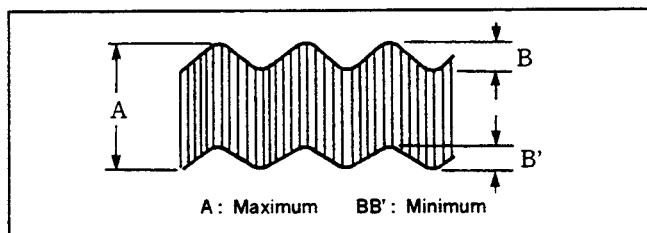


Fig. 4-7.

4-1-7. X-value adjustment

Purpose : To obtain compatibility with other VTR.

Precaution : Be sure to perform the preset tracking adjustment before perform this adjustment. (Refer to the Service Guide.)

Turn off the auto tracking and set the VTR for manual tracking mode.

Mode	Playbadk
Signal	Hi-Fi alignment tape (Hi-Fi 400Hz), alignment tape (JVC-MH-1)
Measuring instrument	Oscilloscope
Measuring point	CH-1: Connector PB RF pin for RF PC board check. CH-2: Connector RF SW P pin for RF PC board check. (Check with the CHA head)
Adjustment locations	X-value adjuster screw

[Adjustment method]

● Adjustment by Hi-Fi alignment tape

When the tracking is set at the center position (by pressing the ∇ and Δ keys simultaneously), adjust the RF output to maximum.

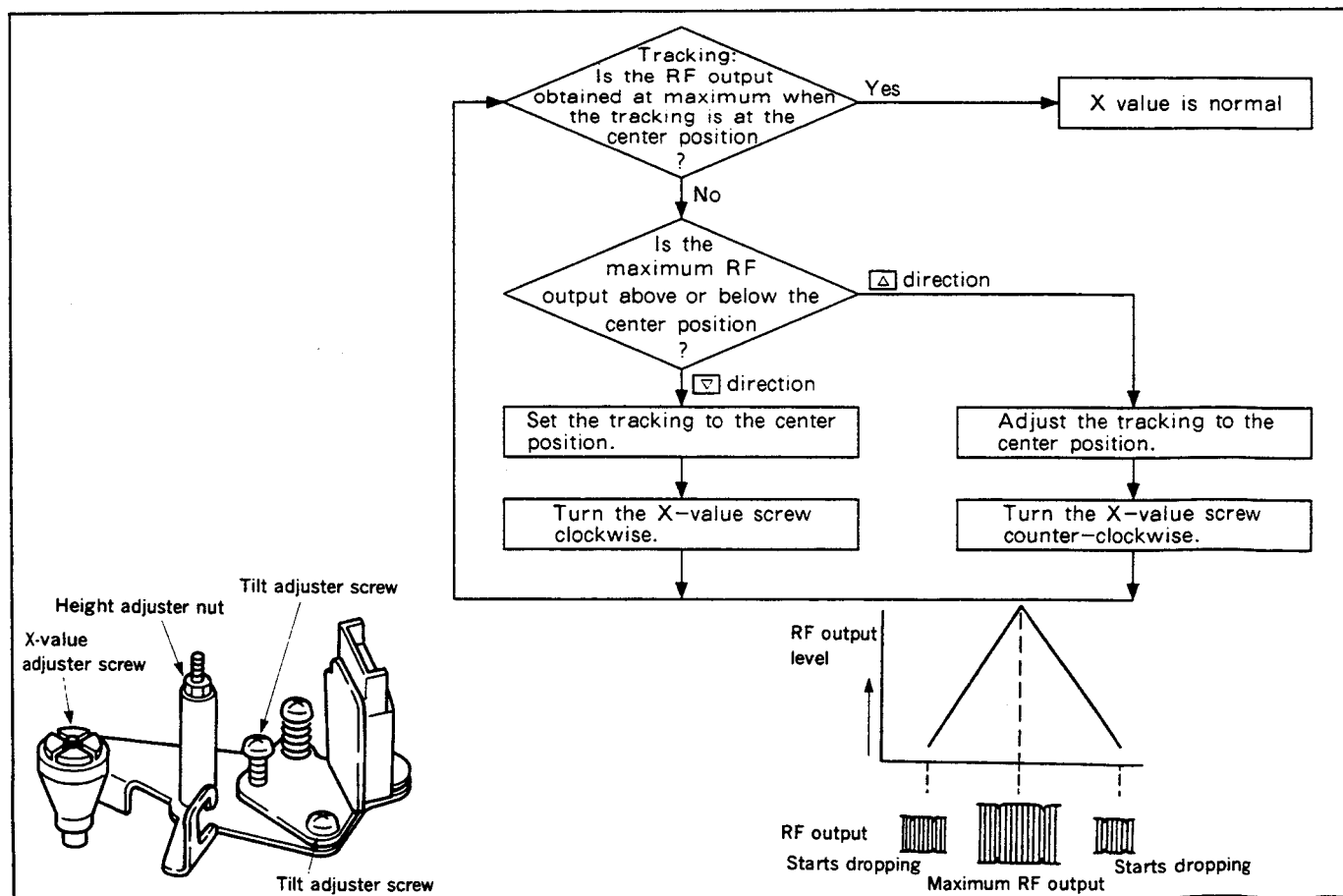


Fig. 4-8.

● **Adjustment by Alignment tape (JVC-MH-1)**

Adjust the X-value adjuster screw so that maximum RF

output is obtained and also that the RF output drops to the same position on pressing the respective ▽ and ▴ buttons while the tracking is set at the center position.

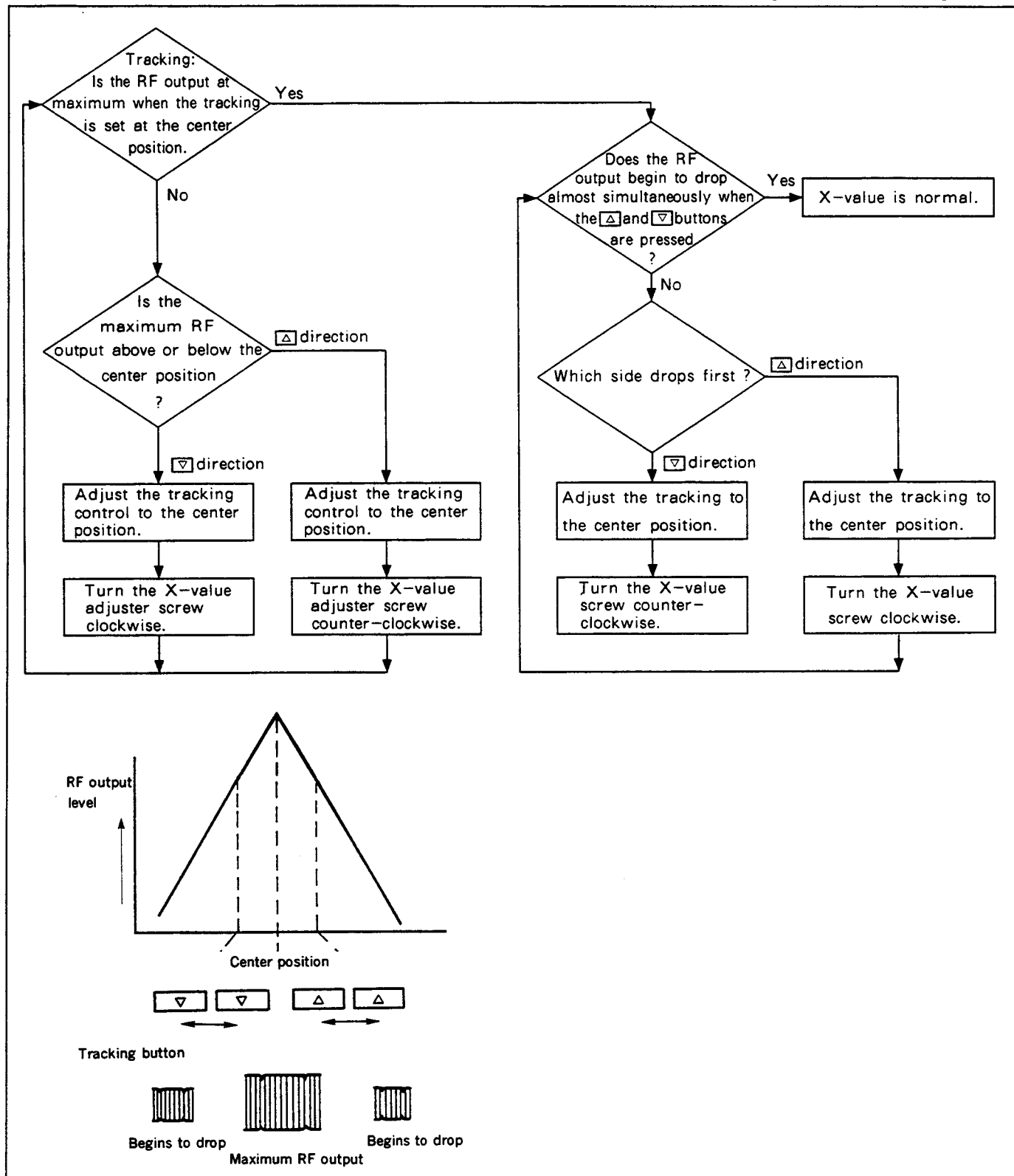


Fig. 4-9.

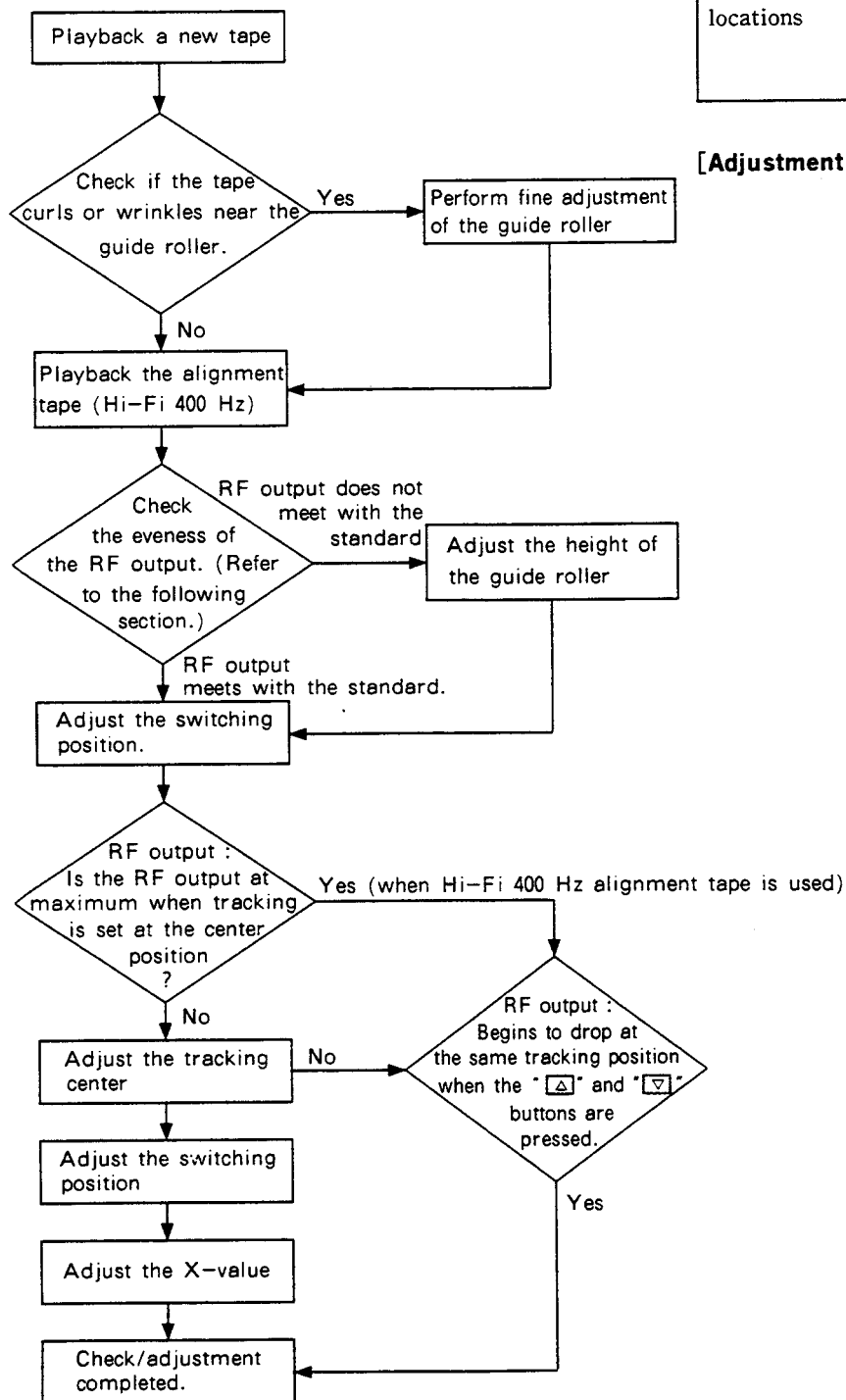
4-1-8. Adjustments after replacing the drum (video head)

Purpose : Co-relative height, X-value and other factors of the drum will deviate from those of the guide roller. If the drum is replaced properly, these deviations are extremely small.

Precaution : Turn off the auto tracking and set the manual tracking mode.

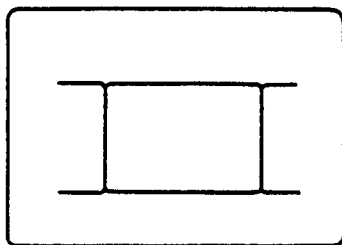
Mode	Playback
Signal	Alignment tape (JVC-MH-1), blank tape
Measuring instrument	Oscilloscope
Measuring point	CH-1 : Connector PB RF pin for RF PC board check. CH-2 : Connector RF SW P pin for RF PC board check.
Adjustment locations	Guide roller (refer to 4-1-5.) Switching position, Tracking preset, SP delay mono-multi, X-value (refer to 4-1-8) } (Refer to the Service Guide)

[Adjustment method]

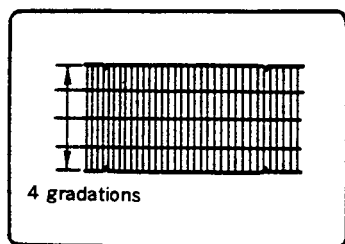


[Checking the evenness and fluctuation of the RF output]

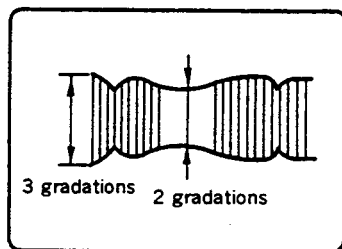
- 1) Set the RF output to the maximum level using the tracking buttons.



- 2) Perform fine adjustment of the voltage level range of the oscilloscope, then adjust the RF output deviation to within 4 gradations.



- 3) Press the tracking buttons and adjust the maximum amplitude of the RF output to within 3 gradations.
- 4) At this time, check if the minimum amplitude is more than 2 gradations.



- 5) Check that the RF output fluctuation between minimum and maximum levels is within 13%.

4-1-9. Checking the tension and torque

Purpose : To check that the tension, torque and compression force of the tape take-up section and mobile sections to ensure smooth tape run and achieve standard VTR performance.

If the tape transport is not smooth or problems occur in relation to the tape transport speed, perform the following check.

Mode	Each operation mode without loading a cassette tape. (Refer to section 1-3.)
Measuring instrument	Torque gauge, Torque gauge adapter

Item	VTR operation mode	Reel to be measured	Measurement value
Main brake torque	Stop	Supply and take-up reels	170g•cm or more
Review torque	Review	Supply reel	180±30g•cm (using the torque cassette)
Take-up torque	Playback	Take-up reel	80 to 140g•cm (using torque cassette)
Back tension torque	Rewind	Take-up reel	4 to 25 g•cm

[Check method]

Measure the torque using the torque gauge and torque gauge adaptor with the torque gauge fixed.

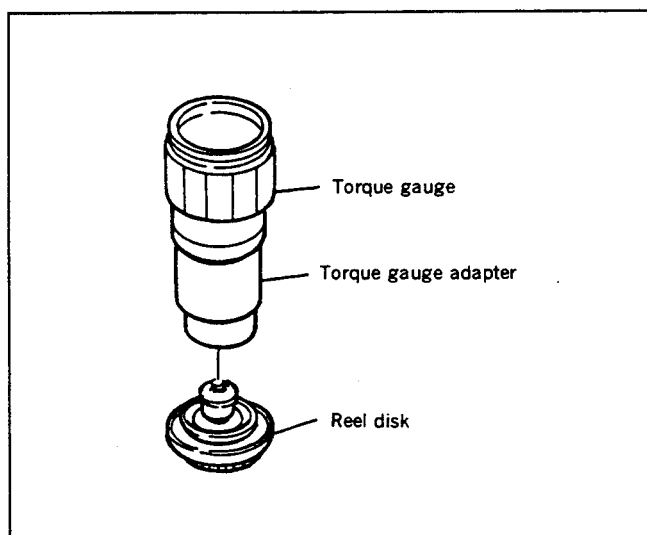


Fig. 4-13.